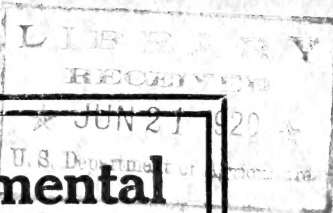


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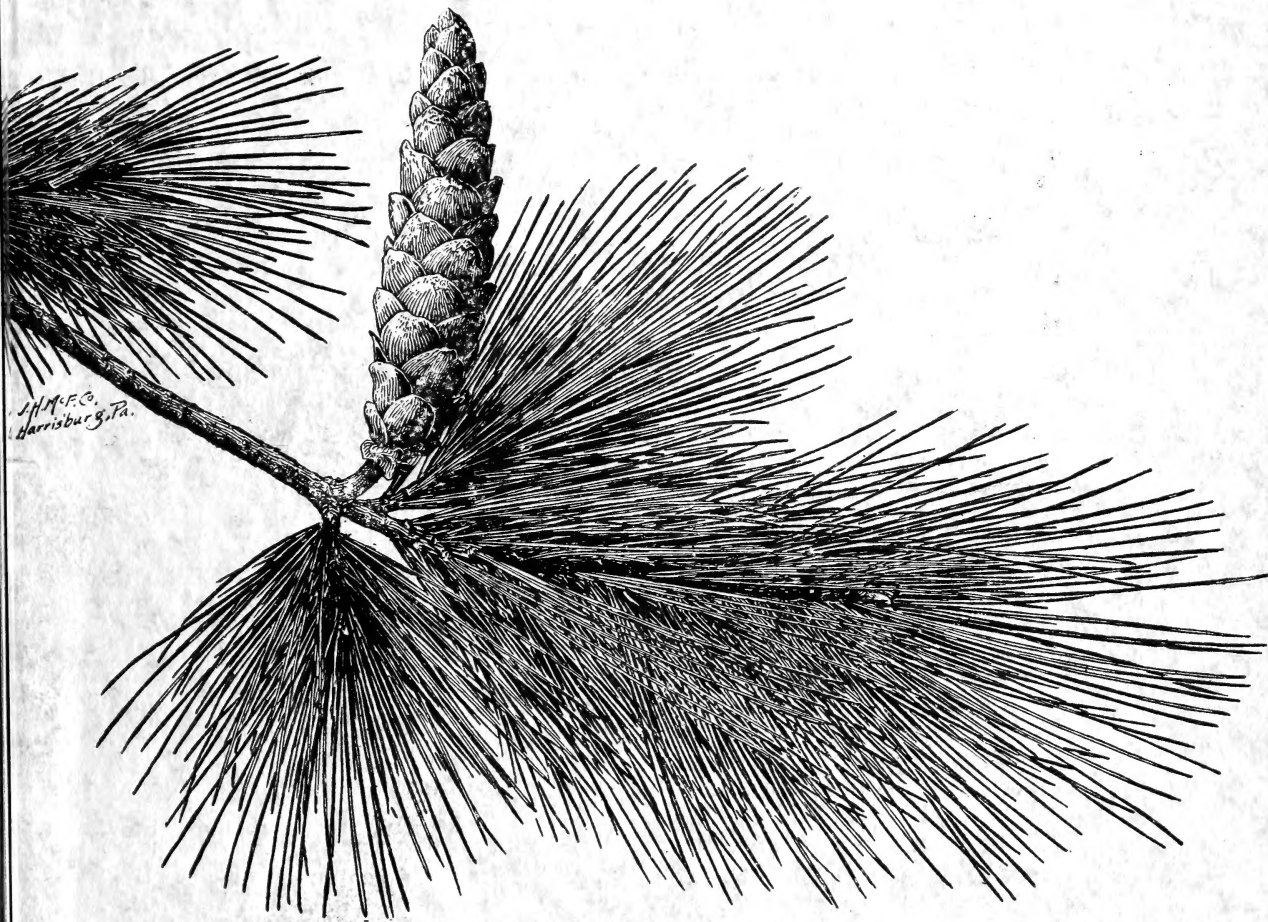
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Handbook of Fruit and Ornamental **TREES and PLANTS**



Established 1853

HOOPES, BRO. & THOMAS COMPANY

Maple Avenue Nurseries

Philadelphia Office: 222-225 Stephen Girard Building
21 South Twelfth Street

WEST CHESTER, PA.

Preliminary Remarks



FIFTY-SEVEN YEARS, with their successes and failures, have elapsed since our business began by the erection of one small greenhouse with about one acre of ground. Today, after the lapse of over half a century, with 15,000 feet of glass and nearly 1,000 acres of land, we feel that our efforts to supply the best nursery stock that can be grown have not been in vain. With the experience gained throughout this long period, by improved systems of cultivation and an earnest desire to merit the confidence of our customers, we trust to be favored with the influence and patronage of our friends in the future as in the past.

Starting out with the intention and belief that every tree and plant sold should be true to name and of the best quality, as far as human skill can make it, we confidently believe this course has been the main-spring of our success, and of the confidence reposed in us by thousands of planters in every section of the country.

All fruits and ornamental plants when first introduced, provided they show merit, are at once procured, and thoroughly tested before sending out to our customers. In cases where it is not possible to make a personal test we are careful to ascertain the reputation of the introducer in every instance, so that we may rely upon his statements, until such time as we are able to grow sufficient quantities for dissemination.

Our Nurseries are located in the immediate vicinity of West Chester, Pa., twenty-seven miles west of Philadelphia, and with which we have nearly hourly communication by the Pennsylvania Railroad.

Our office is directly adjoining Maple Avenue station (West Chester), and is ten minutes' walk from the main station, in West Chester. A trolley-car (fare thirty cents) leaves Sixty-Ninth and Market streets, Philadelphia, every thirty minutes for West Chester.

Our Large and Commodious Packing-houses, covering several acres of ground, enable us to do all of our grading, assorting and packing work strictly under cover, so that our stock is not exposed to the sun or the wind. A Pennsylvania Railroad siding runs directly into our packing-houses thus giving us the most improved and perfect packing and shipping facilities.

The Shipping Season begins in March or April in the spring and October in the autumn. The exact date depends upon the weather conditions at the Nurseries. Our stock is dug and shipped as early in the season as practicable for the best results, and even though vegetation may be somewhat advanced in certain localities when the goods are received, the stock being dormant when shipped, can be planted without risk and will give entire satisfaction.

Exceptional Care is taken in digging trees and plants to prevent unnecessary mutilation of the roots, which are the vital organs of the vegetable world. With the best of care, however, some roots will be more or less broken, owing to the peculiar underground growth of many species.

Accurate Grading of all stock receives strict attention, so that our customers may rely upon receiving the sizes ordered; at the same time, we beg our customers not to overlook the fact that different varieties have different habits of growth; some of the choicest varieties of fruits and ornamentals are frequently light growers in the nursery. Our desire always is to give the best of each class or variety.

Our Nurseries Are Annually Inspected by a special agent of the Department of Agriculture, who has granted us a certificate that he believes our stock to be free from the presence of infectious diseases and injurious insects, which might be transferred from the nursery to the orchard or garden. **As an additional precaution**, we have two **fumigating houses**, in which our trees are treated before shipment.

Notice. All quotations are made subject to the stock being unsold at the time the orders are received by the company, and all orders accepted upon condition that they will be void in case the stock ordered is injured by drought, frost or other casualties, before the shipping season arrives.

Warranty. We exercise the strictest supervision in the propagation of our trees and plants, using the utmost care to have the same genuine and reliable; and whilst we hold ourselves prepared to replace, on proper proof, any that might prove untrue, we do not give any warranty, express or implied, and in case of errors on our part, it is mutually agreed between the customer and ourselves that we shall not at any time be held responsible for a greater amount than the original purchase price of trees or plants.

Visitors Are at all Times Welcome and will be cheerfully shown over our grounds, whether purchasers or not. As we feel a pardonable pride in our collection of rare trees, hybrid roses, etc., all interested in their culture are invited to inspect the results of our work.

TERMS CASH.

HOOPES, BRO. & THOMAS COMPANY

West Chester, Pa.



A view of one of our twenty-acre Apple blocks

Part I. Fruit Department

APPLES

Taking into consideration its hardiness, productiveness and general commercial value, the Apple stands at the head of our list of fruits. In selecting the most important varieties for cultivation, it has been our constant aim to secure only those of standard excellence, and in no instance to recommend a novelty without ascertaining its history from a reliable source. Although a few of the kinds herein enumerated are almost universally popular everywhere, others are not satisfactory except in certain favored localities. Notwithstanding our main crop of trees consists principally of the following kinds, yet we can also supply several other varieties of local reputation. For the convenience of planters we have divided the list of varieties into sections, according to their ripening season. This is intended for the latitude of the middle states, consequently those residing further north or south should make due allowance for their respective locations.

Section I—Summer Apples

Astrachan Red. Rather large; color bright red, with a distinct bloom; flesh white, crisp, juicy, quite acid. Vigorous and productive. July.

Benoni. Medium, roundish or slightly conical; bright yellow, with deep red stripes and dots; flesh yellow, rich, tender, subacid, very good. Aug.

Carolina Red June. Medium size, oblong; deep red; white flesh, juicy, subacid, tender and pleasant. Hardy, and a good bearer. July.

Cornell's Fancy. Medium size, oblong-conical; color yellow, handsomely striped with red; flesh white, crisp, tender, juicy, pleasantly subacid. Productive and a vigorous grower. Aug.

Early Colton. Medium to large; whitish yellow, tinted with red; quality excellent. A handsome Apple, worthy of introduction. First to middle of July.

Early Harvest. Very productive with good cultivation. Medium size, roundish; smooth, bright straw-color; flesh white, juicy, crisp and tender, with a rich subacid flavor. July.

Early Strawberry. Medium, roundish; striped with red on a yellowish ground; tender, sprightly subacid, with an agreeable perfume. Aug.

Early Ripe. Medium size, roundish oblate; pale yellow, sprinkled with a few gray dots; flesh white, tender, juicy, subacid. Tree a good grower and very productive. July.

Golden Sweet. Rather large, roundish; pale straw-color; sweet, tender, rich and excellent. Tree vigorous, spreading and very productive. Aug. and Sept.

Keswick Codlin. Large, yellow; flesh white, subacid; good for cooking. Aug.

Knowles Early. Small; pale greenish yellow; partially striped and splashed with dull crimson. Flesh whitish, moderately juicy, mild subacid. Originated near Philadelphia. Aug.

Primate. Medium, roundish; light yellow; flesh white, tender, juicy, subacid; fine for dessert. A fair grower and productive. Aug. and Sept.

Summer Hagloe. Large; color bright red; flesh white, juicy, subacid. July.



Summer Apples, continued

Summer Pearmain. Medium, oblong; red, streaked with yellow; flesh yellow, especially tender, subacid, with a rich flavor. Aug. and Sept.

Summer Pippin. *Nyack Pippin.* Large; yellow with slight blush; best quality. First of Aug.

Summer Queen. Large, roundish conical; yellow, prettily striped with red; flesh yellow, spicy, rich and rather acid. Aug. and Sept.

Summer Rambo. Medium to large; green, striped with red on the sunny side; pleasant, sprightly subacid and good. Early in Sept.

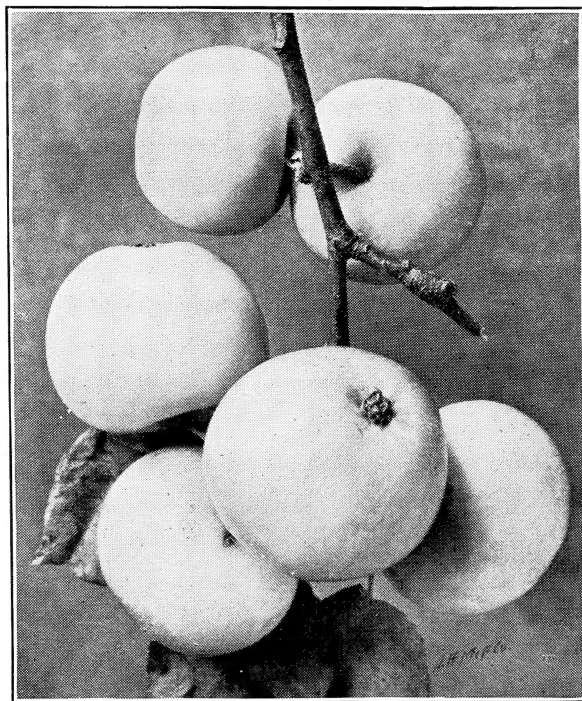
Sweet Bough. *Large Yellow Bough.* Rather large, roundish; pale greenish yellow; flesh white, tender, very sweet, with a agreeable flavor. Tree forms a round head; moderately vigorous. Aug.

Tetofsky. A Russian Apple. Medium size, oblate conical or roundish; smooth, prettily striped with red on a yellow ground; flesh white, juicy, fragrant, subacid and agreeable. Aug.

Townsend. Medium size, oblate; pale yellow, striped with red, with a fine bloom; flesh white, tender, subacid and of agreeable flavor. Aug. and Sept.

Williams Early Red. Medium; color dull red; fine quality; tree a poor grower. July.

Yellow Transparent. Russian origin. Medium in size, roundish oblate; color changing from white to clear yellow; flesh white, juicy, tender, subacid, very good. Tree a light grower, hardy and bears early. First of July.



Yellow Transparent Apples

Section II—Autumn Apples

Alexander. Russian origin. Large size, conical; greenish yellow, striped with orange and bright red; flesh yellowish white, juicy, subacid. Oct.

Autumn Strawberry. Medium size, roundish; whitish, striped with red and covered with a thin bloom; flesh yellowish, juicy, tender, with a pleasant subacid flavor. Sept. and Oct.

Duehess of Oldenburgh. Russian origin. Medium size, roundish oblate; yellow, streaked with red; juicy, sprightly subacid. A vigorous grower, with roundish head and bears abundant crops. Fine for market. Sept.

Fall Pippin. Very large, roundish; rich golden yellow; flesh white, tender, with a delicious aromatic flavor. Oct. and Nov.

Gravenstein. Large, flattened; rich yellow with splashes and stripes of bright red; flesh juicy, tender, subacid, crisp and of fine flavor. Sept. and Oct.

Holland Pippin. Very large, roundish; pale yellow, with a brownish red cheek; flesh almost white; acid, but tender and rich. Sept. and Oct.

Jefferis. Medium or rather large, oblate or roundish; yellow splashed and striped with red; flesh white, tender, rich and juicy. Of moderate growth, but productive. Aug. and Sept.

Maiden's Blush. Rather large, oblate; pale yellow, with a bright crimson cheek and a fine waxy appearance; flesh white, tender, pleasant subacid. Aug. and Sept.

Ohio Nonpareil. Large, roundish oblate; yellow, marked with red; flesh yellowish white, tender, rich subacid, very good. Oct. and Nov.

Porter. Rather large, clear bright yellow; fine-grained, juicy, tender, sprightly subacid, with an agreeable aromatic flavor. Sept.

Pound Sweet. Large; greenish white; flesh white, sweet and good, excellent for cooking. Oct.

Rambo. Medium size, flattish; smooth, yellowish white, marbled and striped with dull red; tender, rich, mild subacid and fine flavored. Tree vigorous, spreading and productive. Oct. to Dec.

Red Bietigheimer. German origin. Very large, roundish or slightly conical; light yellow, almost covered with purplish crimson; flesh white, firm, subacid, with a pleasant flavor. Sept.

Strode's Birmingham. Medium, conical; smooth, rich yellow, with a few gray dots; flesh yellow, juicy, with a sprightly subacid flavor. Growth upright and vigorous; productive. Sept.

Wolf River. A large variety, resembling the Alexander, but of better quality.



Section III—Winter Apples

Albemarle Pippin. *Yellow Newtown Pippin.* Medium, roundish and oblique; yellow, with a bright red cheek; crisp, firm, juicy, with a rich, high flavor. Tree of slow growth. Dec. to May.

Baldwin. Large, roundish; yellow, nearly covered with red; flesh yellowish white, crisp, juicy, with a rich, high flavor. Tree a vigorous grower and very productive. Dec. to March.

Belle de Boskoop. Russian origin. Medium to large; yellow, shaded with red; flesh a little coarse, crisp, juicy, rich subacid. Feb. to April.

Bellefleur. *Yellow Bellflower.* Large, oblong and tapering; smooth, pale yellow, with an occasional red cheek; crisp, juicy, tender, with a sprightly subacid flavor. Dec. to Feb.

Belmont. *Gate.* Medium to large, somewhat oblong; lemon-yellow, occasionally with a bright red cheek; flesh yellowish, juicy, tender, crisp, with a very agreeable flavor. Nov. to Jan.

Ben Davis. Large, roundish ovate; yellow, striped with red; flesh whitish, subacid. An early and abundant bearer; hardy and vigorous. A profitable market variety. Dec. to March.

Bismarck. German origin. Large, roundish and flattened; whitish yellow with streaks of bright crimson; juicy, almost tender. Dec.

Delaware Winter. Large, roundish oblate; bright red; crisp, juicy, firm, subacid and sprightly aromatic. Tree vigorous and spreading, an early and annual bearer and a long keeper. Jan. to May.

Dickinson. Originated in West Chester, Pa., from seed of the Yellow Bellefleur. Large, ovate, inclining to conical; yellow, covered with faint streaks of red; mild, subacid, juicy and agreeable. Prolific and regular bearer. Jan. to March.

Dominie. Medium, flattish, bright greenish yellow, with stripes and splashes of bright red and russet spots; flesh white, exceedingly tender and juicy, with a very pleasant flavor. Dec. to March.

Fallawater. Very large, globular, inclining to conical; yellowish green shaded with dull red; flesh greenish white, crisp, juicy, tender, with a decidedly pleasant flavor. Nov. to Feb.

Fameuse. *Snow.* Very popular northern districts. Medium, roundish and flattened; deep red; flesh snow-white, juicy, very tender, sprightly, with a slight perfume. Nov. and Dec.

Gano. Large, roundish, dark brilliant red; flesh yellow, fine-grained, tender, pleasant, mild subacid. A good shipper and late keeper. Tree a vigorous grower and very productive. Superior to Ben Davis, which it resembles. Feb. and March.

Greening, Rhode Island. Large, roundish and flattened; dark green, flesh yellow, tender, rich and juicy, with an aromatic flavor. Nov. to Feb.

Greenville. *Downing's Winter Maiden's Blush.* A native of Bucks county, Pennsylvania, and known formerly as Winter Maiden's Blush. Medium to large, oblong conical; yellow, with a bright red cheek; crisp, tender, juicy, with a mild subacid flavor; very good. Jan. to March.

Grimes' Golden. Greatly prized as a hardy variety, producing annual crops. Medium, roundish oblate; rich golden yellow, with small dots; flesh yellow, juicy, tender, crisp, rich, sprightly subacid, with a fine aroma. Dec. to Feb.

Hubbardston Nonsuch. Large to very large, roundish oblong; yellowish ground, with stripes and spots of red; flesh yellow, juicy, tender, sweetish and rich. Nov. to Jan.

Ingram. This beautiful new Apple is a native of Missouri, where it is highly esteemed. Medium, roundish conical; yellow, freely sprinkled with bright carmine dashes and stripes; flesh juicy and of excellent flavor. Very late in spring, keeping well until June, when most varieties are past.

Ivanhoe. Medium to large; yellow, with a slight blush in the sun; flavor crisp, sprightly and excellent. Jan. to June.

Jonathan. A beautiful native fruit of undoubted excellence. Medium, roundish conical; smooth, light yellow, almost covered with red stripes and deep red in the sun; flesh white, juicy, tender, with a mild vinous flavor. Nov. to March.

King of Tompkins County. Large, globular; yellow, striped and shaded with crimson; flesh yellow, tender, juicy, with a rich, aromatic flavor. Vigorous and productive. Dec. to March.

Lady Apple. Very small, flattish; skin smooth, glossy, yellow with a bright red cheek; flesh white, tender, crisp, juicy, with a subacid, agreeable flavor. Dec. to May.

Lankford's Seedling. Medium to large; yellow, striped and covered with red; flesh firm, juicy, mild and subacid, and excellent. Jan. to May.

Lawver. Large, oblate roundish; surface covered with bright deep red; flesh firm, crisp, subacid and of aromatic flavor. Jan. to May.

Longfield. Russian origin, but liable to blight in some sections. Medium to large; covered with red stripes, and blush on the sunny side; rich, sprightly and subacid. Dec. to April.

Mann. Medium, roundish oblate; deep yellow, often with a brownish red blush in the sun; flesh yellowish, juicy, mild, subacid. Jan. to April.

McIntosh Red. Large; skin yellow, nearly covered with bright red; flesh white, tender and juicy. Tree very hardy. Nov. to Feb.

Monmouth Pippin. From Monmouth Co., N. J. Large, oblate, flattened; pale yellow, with a handsome red cheek; flesh fine, juicy, brisk, aromatic subacid; very good. Dec. to Feb.



A view of a 20-acre Apple block

Winter Apples, continued

Morris Sweet. Originated in Bucks Co., Penna. Large, dull green color, sweet and good quality. Dec.

Nero. Medium to large; dark red; quality good; regular bearer; late keeper. Dec. to Feb.

Newtown Pippin. *Green Newtown Pippin.* Medium, roundish; dull green, with a blush on the sunny side; flesh greenish white, juicy, crisp, with a fine aroma and delicious flavor. Slow grower; requires high cultivation. Dec. to May.

Northern Spy. Large, roundish oblate, conical; pale yellow; covered with stripes of purplish red in the sun; flesh white, tender, fine-grained, slightly subacid, with delicious flavor. Dec. to June.

Nottingham Brown. Large, dark red; flesh white, juicy and good. Tree a poor grower. Dec. to Feb.

Paragon. *Mammoth Black Twig.* Originated in Arkansas and a seedling of Winesap, resembling its parent, but superior. Large; deep red; flesh yellowish, crisp, firm, with a pleasant flavor. A strong grower and an early and abundant bearer. Dec. to April.

Peck's Pleasant. Medium to large, roundish or somewhat flattened; greenish yellow, with a red cheek; flesh yellowish, fine-grained, juicy, tender, crisp, with subacid flavor. Nov. to March.

Pennock. Fruit quite large, oblique; deep red, with numerous gray dots; flesh yellow, tender and juicy, with a sweetish flavor. Nov. to March.

Pewaukee. Origin, Wisconsin, from seed of the Duchess of Oldenburgh. Medium to large, roundish oblate; bright yellow, striped and splashed with dark red; flesh white; slightly coarse, but

breaking juicy, subacid and somewhat aromatic. Tree very hardy. Jan. to May.

Polly. A new and very promising Apple from Lawrence Co., Penna.; highly recommended. Medium to large, oblong-conical; pale greenish yellow, with streaks of red and deep red or carmine in the sun; juicy, rich and excellent. Jan. to March.

Pyle's Red Winter. *Pyle's Large Red.* Origin, Chester Co., Penna. Large, roundish oblate; greenish yellow, shaded with pale red; flesh whitish yellow, crisp, juicy, pleasant subacid. Jan. to March.

Rawle's Janet. *Neverfail.* Medium, oblate-conical; yellowish, shaded, striped with red; flesh whitish yellow, juicy, tender, agreeable subacid. Tree vigorous, blooms late. Feb. to June.

Red Romanite. *Cart House.* Small or medium, roundish, conical; yellow, nearly covered with red; flesh yellowish, juicy, fine-grained, mild subacid. Feb. to April.

Ridge Pippin. Rather large, roundish conical, distinctly ribbed; yellow, with russet dots; flesh yellowish, crisp, juicy, with a mild, sweetish flavor, slightly aromatic. March and April.

Roman Stem. Below medium, roundish; whitish yellow, with a blush and numerous russet patches; tender, juicy, with a rich, pleasant, musky flavor. Vigorous and productive. Nov. to March.

Rome Beauty. Large, roundish; yellow, striped with red; flesh yellowish, juicy, tender, sprightly subacid. Of moderate growth and a late bloomer. Dec. to Feb.

Russet-American Golden. *Sheep Nose.* Below medium, roundish ovate; dull yellow, almost covered with russet; flesh yellowish, juicy, tender, with a rich spicy flavor. Dec. to March.



Winter Apples, continued

Russet, English. Medium, roundish or conical; pale yellow, mostly covered with russet; flesh yellowish white, crisp, firm, with a slight subacid but pleasant flavor. Jan. to May.

Russet, Golden. Medium, conic or roundish oblate; handsome golden russet color with a red cheek; flesh yellowish white, rich, tender, mild subacid. Jan. to Apr.

Russet, Roxbury. *Boston Russet.* Large, roundish, a little flattened; dull green, covered with deep russet; flesh greenish white, slightly crisp, somewhat rich, subacid flavor. Jan. to June.

Smith's Cider. A native Penna. Apple of decided merit and popular. Medium, roundish oblate; yellow, shaded and striped with red; flesh whitish, crisp, juicy, tender and mild subacid. Tree vigorous and productive. Dec. to March.

Smokehouse. A popular old variety in Penna., where it originated. Above medium, roundish oblate; yellow, shaded and striped with red; flesh yellowish, crisp, juicy, rich and subacid. A rather crooked grower but productive. Sept. to Feb.

Spitzenburg, Esopus. Large, oblong and tapering; skin smooth, bright red, with numerous russet dots; flesh yellow, crisp, juicy, with a brisk, rich flavor. A moderate bearer. Dec. to Feb.

Stark. A long keeper and profitable market fruit. Large, roundish; greenish yellow, shaded and striped with red; flesh yellowish, rather coarse, juicy, mild and subacid. Growth upright, vigorous and productive. Jan. to May.

Stayman Winesap. Raised from seed of the old Winesap by Dr. Stayman, of Kansas, but better in every way than its parent. Medium to large, roundish oblong; bright red, occasionally streaked;

flesh yellow, crisp, juicy, with a rich delicious flavor. Tree very vigorous. The most profitable winter Apple for the middle states. Dec. to May.

Sutton Beauty. Originated in Sutton, Mass., and is a valuable new Apple. Medium or above, roundish oblate conic; yellow, shaded and striped with crimson; flesh whitish, juicy, tender, crisp and pleasant subacid. Nov. to Feb.

Talman's Sweet. Medium, roundish; whitish yellow, with a blush on one side; flesh white, fine-grained, with a sweet, rich flavor. Tree hardy and very productive. Nov. to Apr.

Twenty-Ounce. Very large, roundish; greenish yellow, striped and mottled with deep red flesh sprightly subacid, good. Oct. to Jan.

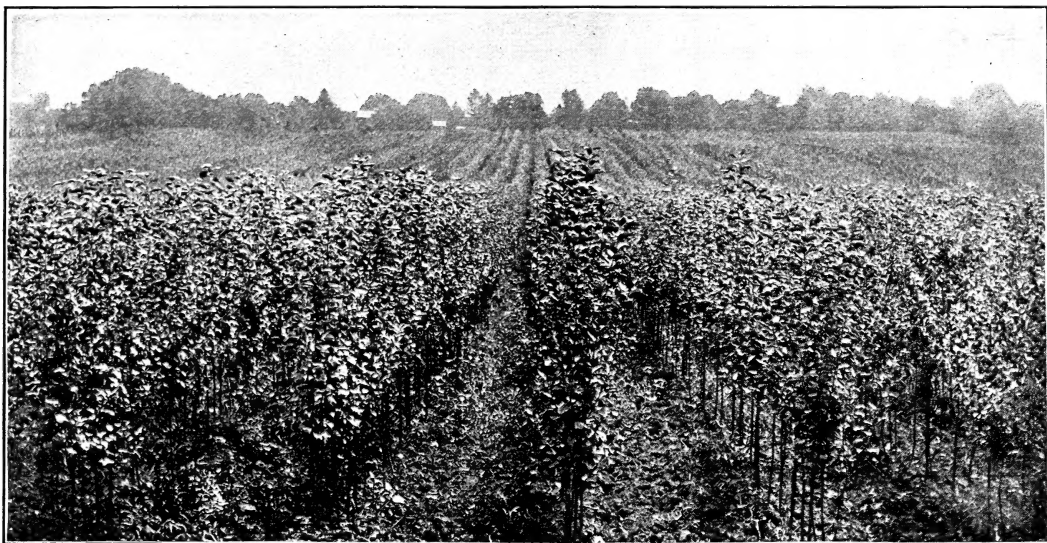
Wagener. Medium to large, roundish oblate; yellow shaded and marked with red, often full deep red; flesh yellowish, tender, aromatic, mild subacid. Nov. to Feb.

Wealthy. From Minnesota; recommended for hardiness, etc. Medium; roundish oblate; yellow, shaded and striped with rich, deep crimson in the sun; flesh white, fine-grained, tender, juicy, vinous subacid. Tree vigorous. Dec. to Feb.

Westfield Seek-no-Further. Large, roundish conical; greenish ground, covered with dull red; flesh white, tender, fine-grained, with a rich Pearmain flavor. An excellent dessert fruit. Oct. to Feb.

Willow Twig. Medium, roundish; light yellow, shaded and striped with deep red; flesh yellowish green, subacid, not very rich. Jan. to May.

Wine. *Hay's, or Penna. Red Streak.* Above medium; roundish, somewhat flattened; smooth, deep red, occasionally with yellow stripes; flesh yellowish white, juicy, crisp, rich and pleasant flavor. Oct. to March.



View in one of our Apple Blocks



Winter Apples, continued

Winesap. Medium, roundish oblong; smooth, dark red; flesh yellow, crisp, firm, with a rich, high flavor. An irregular grower, but an early and productive bearer. Profitable for market. Nov. to May.

Winter Sweet Paradise. Quite large, irregular roundish oblate; dull green with a brownish blush; flesh white, juicy, sweet, fine-grained, sprightly and excellent. Nov. to March.

York Imperial. *Johnson's Fine Winter.* Highly esteemed in Pennsylvania, where extensively planted. A profitable market variety. Medium to large, oblate, oblique; whitish shaded with crimson; flesh yellowish, juicy, firm, crisp, and pleasantly subacid. Tree very productive. Nov. to Feb.

Section IV—Crab Apples

General Grant. Large, yellow, with stripes of deep red, and dark red, almost black, on the sunny exposures; flesh white, moderately fine-grained, mild subacid flavor. Sept. and Oct.

Hyslop. Large, in clusters, roundish ovate dark rich red, covered with a thick blue bloom; flesh yellowish, subacid. Excellent for cooking purposes and for converting into cider. October.

Large Red. *Red Siberian Crab.* Larger than the old Siberian Crab, roundish ovate; brilliant red on a pale yellow ground; flesh acid and greatly esteemed for preserves and jellies. Tree rather small, regular and ornamental.

Large Yellow. Medium, size of the above, almost round; pale yellow, with a faint blush on one side; flesh similar to the preceding, and of equal use for preserving purposes. The tree is likewise exceedingly ornamental when full of fruit.

Montreal Beauty. Large, roundish oblate; bright yellow, mostly covered with bright rich red; flesh yellowish, firm, rich and acid. This is one of the most beautiful of Crabs. Sept. to Oct.

Martha. Below medium; bright yellow, shaded with light red; flesh mild, clear, tart; has no equal for sauce and fair to eat uncooked. Rapid grower and abundant bearer of beautiful fruit. Oct. to Nov.

Sweet-Scented. *Malus coronarius*, L. Our native species, worthy of culture for its charming fragrant rose-colored blossoms. Large, globular; translucent, fragrant greenish yellow fruit. Tree of rather strong growth, twenty feet high. Oct.

Transcendent. Medium, roundish oblong, flattened at the ends; golden yellow, with a crimson cheek and a delicate white bloom; flesh yellow, crisp, with pleasant subacid flavor. Sept.

Van Wyck Sweet. Large, roundish; smooth, whitish, shaded and mottled with bright red; flesh whitish, moderately juicy, rather rich, honeyed, sweet. Vigorous and productive. Sept.

Whitney's No. 20. Large, striped or almost red when fully ripe; flesh yellowish white, very juicy, subacid. Excellent for eating and canning, as well as for cider. Vigorous. August.



Section of our two-year-old Pear Trees

PEARS

Whether for market or home consumption, this fruit is highly esteemed for its excellent quality and generally attractive appearance. They will not stand neglect so readily as the apple, but will abundantly repay the orchardist for all the extra care and attention required. Although preferring a strong loam, Pears may be profitably grown on any character of soil not too dry, nor yet retentive of water.

To obtain best results, an annual application of bone-dust and old well-rotted manure is absolutely indispensable. The modern system of spraying the trees with poisonous solutions, thus destroying injurious



Pears, continued

insects and parasitic fungi, cannot be too highly recommended, as without their aid it is impossible to obtain good crops of perfect fruit.

Standard Pears, or those grown on Pear roots, are decidedly preferable for general cultivation, but when several varieties are desired in a small area of ground, Dwarf Pears worked on quince roots are ad-

missable. The latter, however, require high culture and constant attention, especially in the matter of pruning. Varieties in the following list that are best suited for the quince stock are marked Q.

Section I—Summer Pears

Bartlett. Large, oblong, clear yellow, with mostly a pale blush on sunny side; flesh white, fine-grained, juicy, sweet and of highly aromatic flavor. A profitable market variety. Regular and abundant bearer. Sept.

Bloodgood. Medium, turbinate; yellow with russet markings; flesh yellowish white, melting, buttery, with a rich, aromatic flavor. Aug.

Clapp's Favorite. Large, obovate, ovate; skin thin, pale yellow, marked with pale crimson and fawn-colored dots; flesh white, fine-grained, juicy, buttery, rich and sweet. Aug. and Sept. Q.

Doyenne d'Ete. Small, roundish obovate; skin smooth, yellow, with bright red cheek; flesh white, juicy, melting, with a sweet agreeable flavor. Last of July.

Koonce. Especially valuable for market. Medium to large, ovate; obovate; yellow, with bright carmine cheek; quality good and not inclined to rot at the core. Last of June and first of July.

Manning's Elizabeth. Small, obtuse, pyriform; bright yellow, with handsome red cheek; flesh white, juicy, melting, sweet and of pleasant flavor. Very productive and reliable. August.

Osband's Summer. Small, roundish ovate; yellow, with a bright red cheek and brown dots; flesh white, melting, juicy, with a rich, sweet flavor. Aug. Q.

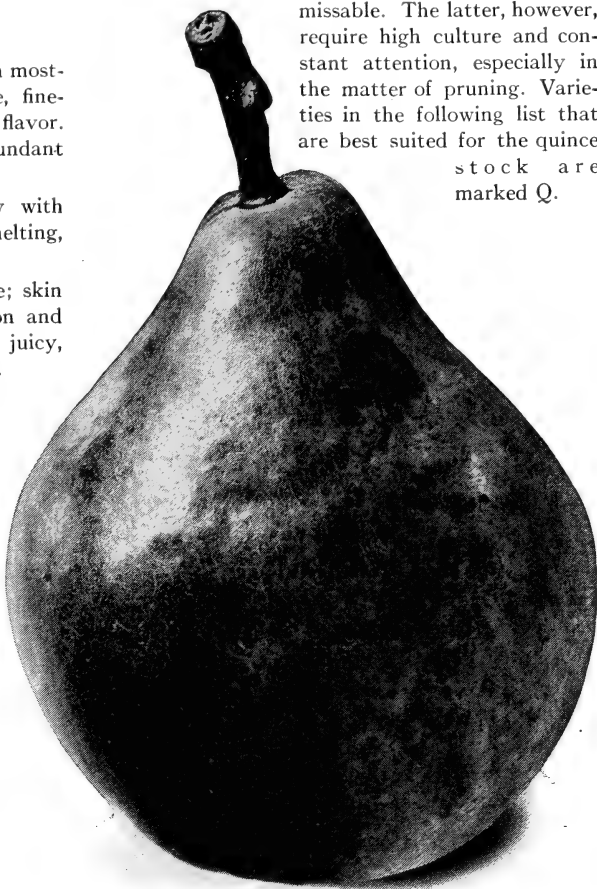
Wilder's Early. Small to medium, bell-shaped; pale yellow ground, with shading of brownish carmine; flesh whitish yellow, fine-grained, tender, with a sprightly sub-acid flavor. Aug.

Section II—Autumn Pears

Belle Lucrative. *Fondante d'Automne.* Medium, obovate to globular; pale yellowish green, with slight russet markings; flesh melting, juicy, sugary, rich and delicious. September.

Beurre d'Anjou. One of the most popular and reliable of its season. Large, obtuse, pyriform; dull yellowish green, sometimes with a dull reddish cheek; flesh whitish, juicy, melting, with a brisk perfumed flavor. Oct. to Dec. Q.

Beurre Clairgeau. Large, pyriform; yellow, inclining to fawn-color, shaded with orange and crimson; flesh yellowish, juicy, buttery, with a sugary perfumed flavor. Oct. to Jan.



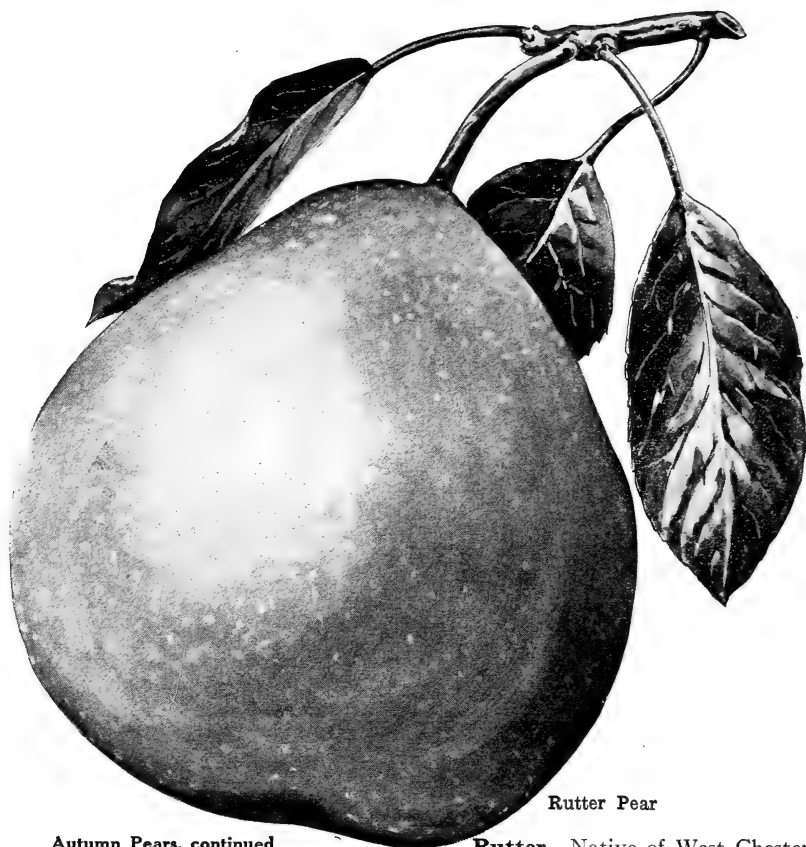
Rossney Pear (see page 8)

Duchesse d'Angouleme. A magnificent large fruit when successfully grown. Very large, oblong, obovate; dull greenish yellow, with russet markings; flesh white, very juicy, buttery, with a rich, excellent flavor. Tree a strong grower. Oct. Q.

Flemish Beauty. Large, obovate, pyriform; pale yellow, with marblings of russet; flesh yellowish white, juicy, melting, sweet and rich. Last of September. Q.

Garber's Hybrid. One of the Japan seedling Pears, raised by J. B. Garber, of Pennsylvania. Very large, oval, narrowing at both ends; yellow; flesh whitish, juicy, sweet and very pleasant. Sept.

Howell. Above medium, roundish pyriform; pale yellow, with mostly a bright red cheek and russet dots; flesh whitish, melting, juicy, with brisk vinous flavor. Sept. and Oct. Q.



Rutter Pear

Autumn Pears, continued

Idaho. Large, globular; yellow, brownish red on the sunny side; flesh melting, juicy, rich and excellent. Sept. and Oct.

Kieffer's Hybrid. From seed of the Chinese Sand Pear; originated near Philadelphia. Large, roundish oval; golden yellow, with patches of russet; flesh whitish, somewhat coarse, juicy, sweet and good. Unsurpassed for canning. Growth strong and very productive. Oct. and Nov.

Le Conte. Undoubtedly another hybrid from the Chinese Sand Pear. Large, pyriform; smooth, pale yellow, quality good, juicy and pleasant. Tree remarkably vigorous, healthy and free from blight. A prolific bearer and profitable. Oct.

Pottstown. A new seedling Pennsylvania Pear. Medium, pyriform; greenish yellow, with a bright red cheek; flesh fine-grained, juicy, with a delicious flavor. Tree a straight, upright grower and an abundant bearer. Fruits last of September, but may be kept until Dec.

Rossney. A new variety, highly recommended. Originated at Salt Lake City, Utah, where it is free from blight and very hardy. Medium to large, oblate, obtuse, pyriform; creamy yellow, with bright red cheek; flesh tender, rich, sugary, fine-grained and melting. Tree vigorous and productive. Sept. and Oct.

Rutter. Native of West Chester, Pa. Medium to large, almost globular; greenish yellow, sprinkled and marked with russet; flesh white, rather juicy, melting and vinous. Good grower and bearer. Oct. and Nov. See illustration.

Seckel. A native fruit of the highest excellence. Small; yellowish russet, with a red cheek; flesh whitish, buttery, very juicy, melting, with a delicious, rich, spicy flavor. Tree hardy, a regular and abundant bearer. Poor grower. Aug. to Oct. Q.

Sheldon. Medium, roundish obovate; greenish yellow, covered with russet; flesh whitish, melting, juicy, sweet, rich and aromatic. Tree vigorous, erect, hardy and a good bearer. Oct.

Vermont Beauty. A fine New England Pear, Medium, obovate, obtuse, pyriform; yellow, with a bright red cheek spotted with russet; flesh whitish, melting, juicy, rich and aromatic. Tree vigorous and prolific. Oct.

Worden-Seckel. Medium, buttery, juicy and fine-grained, with the rich, spicy flavor of the Seckel. Tree a poor grower. Oct. to Dec.

Section III—Winter Pears

Lawrence. Unsurpassed as an early winter Pear. Medium, obovate, obtuse, pyriform; lemon-yellow, marked with russet; flesh whitish, melting, very juicy, sweet and aromatic. Dec.



Section of 30-acre Peach Block

PEACHES

The Peach is unquestionably one of the most popular fruits for orchard culture, and when in perfection the most delicious for home use, and with proper culture is easily grown. The soil, climate and general conditions in our nurseries are ideal for Peach growing, combining all the elements for producing strong, healthy trees, without the aid of artificial or stimulating fertilizers; hence since the establishment of our business we have devoted much time and a large area to the raising of Peach trees for the needs of large orchardists, as well as small planters everywhere.

In former years the great Peach belt was considered to lie in Delaware, Maryland and southern latitudes, but in later years many northern orchardists have found it the most profitable fruit they grow provided they obtain a good healthy tree with well-ripened wood, like those we produce on our selected soil. We have many testimonials from our customers in the state and farther North who have been planting our Peach trees for twenty years, and they say they owe their success to the health and productiveness of our trees.

The Peach succeeds best on light soil, moderately rich and kept clean by constant cultivation. Severe pruning when the young trees are set in the orchard is necessary for the best results. All side branches should be pruned to within two or three buds of the body and the leader cut well back. Peach trees should branch low and be annually headed in, in order to produce a round, compact head. After the fruit sets, a judicious thinning of the crop will greatly benefit the fruit, not only in size, quality and appearance, but will really increase the yield.

Admiral Dewey. Medium; yellow, shaded with bright red; flesh yellow and of excellent flavor. Middle of July.

Alexander. Semi-cling; medium, round, with a deep suture; whitish, almost covered with red; flesh white, sweet and juicy. Bears profusely and very young. Middle of July.

Belle of Georgia. A seedling raised at Marshallville, Ga., and a full sister of Elberta, both originating the same year. In growth it has proven

extremely hardy and a sure bearer at the North. Freestone; skin rich creamy white, with a bright red cheek on sunny side; quality delicious. Season same as Oldmixon, or a few days before Elberta.

Bilyeu's Late October. Large, white, with a pretty blush; flesh white, rich, and firm. Excellent for market on account of its lateness. Oct.

Bronson. Free; large; yellow, with a bright crimson cheek; flesh yellow and of excellent flavor. Last of Sept.

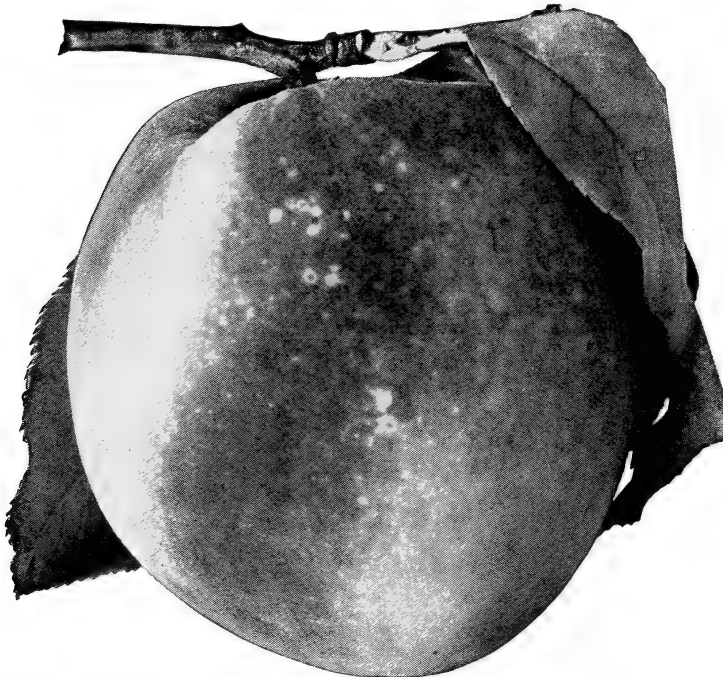


Peaches, continued

Captain Ede. Originated in 1870 by Captain Henry Ede, Cobden, Ills., where it ripens a few days before Elberta; strong grower, early and enormous bearer; fruit uniform size, fair and smooth; color, lemon-yellow with red cheek; perfect freestone; quality good. One of the finest canning Peaches.

Carman. Large; yellowish white with bright red cheek; flesh white, juicy, with a pleasant flavor. Early in Aug.

Chair's Choice. Origin, Anne Arundel Co., Md. A late market Peach. Freestone; large; yellow, with a red cheek; flesh yellow, firm and of good quality. A strong grower and bears well; fruits early. Sept.



Elberta Peach

Champion. One of the hardiest and most reliable varieties, originating in Illinois. Freestone; very large; creamy white, with a bright red cheek; flesh creamy white, firm, sweet and delicious. Tree vigorous and very productive. July.

Chinese Cling. Clingstone; large, roundish oval; creamy white, shaded with red; flesh white, juicy, melting, with a rich vinous flavor. First to the middle of Sept.

Christiana. Freestone; very large; yellow, with red cheek; flesh yellowish, juicy, melting and very agreeable. Tree quite vigorous and a prolific bearer. Last of Sept. and first of Oct.

Conkling. Large, round; golden yellow, marked with crimson; flesh pale yellow, very juicy, sweet, vinous and excellent. Last of Aug.

Coolidge's Favorite. Large, roundish; clear smooth white, with a mottled crimson cheek; flesh juicy, melting, sweet, with a rich flavor. Very productive and hardy. Aug.

Crawford's Early. Large, oblong; yellow with a showy red cheek; flesh yellow, juicy and melting, with a sweet, rich flavor. Middle of Aug.

Crawford's Late. One of the finest and most esteemed Peaches for all uses. Freestone; large, roundish, yellow, with a red cheek; flesh deep yellow, melting, juicy, rich and delicious. One of the most profitable market varieties. Sept.

Crosby. Freestone; medium; splashed and striped with red; flesh firm, yellow, sweet, juicy and rich. Last of Aug.

Druid Hill. Large, roundish; greenish white, with a reddish cheek; flesh greenish white, melting, juicy, with a rich vinous flavor. Late Sept.

Early Canada. From the Province of Ontario, Canada. Almost freestone; medium size, roundish; greenish white, with light and dark red covering; flesh juicy, sweet and pleasant. Early in July.

Early Rivers. Large; pale yellow, with pink cheek; flesh juicy, rich and melting. Last of July.

Elberta. An unusually popular and very handsome Peach. Freestone; very large, oblong with deep suture; yellow with red cheek; flesh yellow, juicy, rich and of delicious flavor. Tree a vigorous grower and very productive. Middle of Aug.

Engle's Mammoth. A new seedling variety from Michigan, in the way of Crawford's Late; large; clear deep yellow, with bright red shading; flesh juicy, rich and pleasant. Middle of Sept.

Fitzgerald. A Canadian variety, hardy and handsome in appearance. Freestone; large, roundish; bright yellow, suffused with red; flesh deep yellow, subacid, juicy and agreeable. An improved Early Crawford. Last of Aug.

Fitzhugh. A new early Peach from Arkansas ripening ten days earlier than any other variety. White with a pink blush; fine flavor; free from rot. Last of June.

Flater's, or Yellow St. John. Large; resembles Crawford's Early, deeper in color; flesh yellow, sweet, juicy and high-flavored. First of Aug.

Foster. Similar to Crawford's Early and popular for marketing; large, roundish; yellow, with a red cheek; flesh very juicy, slightly subacid, rich and agreeable. First of Aug.



Peaches, continued

Fox's Seedling. Large, round, a little compressed; white, with a red cheek; flesh sweet, juicy and excellent. First to middle of Sept.

George the Fourth. An old and highly valued Peach, especially for home use; large, round, with broad suture; pale yellowish white, with bright red cheek; flesh melting, juicy, with a delicious rich flavor. Middle of Aug.

Globe. A fine Pennsylvania seedling; very large, globular; golden yellow, with a decided red blush; flesh yellow, very firm, juicy, rich and luscious. Last of Sept.

Golden Drop. Medium, roundish; yellow, shaded with bright red; flesh yellow, juicy, rich and excellent. Sept.

Golden Dwarf. This is an exceedingly interesting dwarf ornamental tree, bearing excellent fruit. Clingstone; medium; golden yellow, with a mottled red cheek; flesh yellow, juicy, rich and luscious. Fine for pot culture. Sept. and Oct.

Greensboro. Originated in Greensboro, N. C., and is the best of our early Peaches; large, round; yellow, with a bright red covering; flesh white, very juicy, and of excellent flavor. Last of July.

Hale's Early. Liable to rot in some sections. Sub-clingstone; medium; white, with a red cheek; flesh white, juicy and very good. Last of July.

Heath Cling. The most satisfactory clingstone Peach known to orchardists. Very large, oblong with suture; creamy white, with a faint blush; flesh greenish white, tender, juicy, melting, with a rich and luscious flavor. Oct.

Heath Free. Very large, oblong; pale greenish white, with purplish red cheeks; flesh greenish white, melting, juicy and pleasant subacid flavor. Middle of September.

Hemphill. Originated in the garden of Judge Hemphill, of West Chester, Pa. Freestone; very large; white, with a red cheek; flesh white, juicy and excellent. October 7, a specimen measured $9\frac{3}{4}$ inches in circumference. On October 14, one from the tree, measured $2\frac{1}{2}$ inches in diameter.

Hiley. Seedling of Belle of Georgia. Fruit large, more highly colored than the Belle, which it resembles. As beautiful and as good as Mountain Rose and a week earlier; flesh white, sweet and delicious. Last of July.

Horton's River. A seedling of Early Rivers; similar to that variety only ripens later. Middle of Aug.

Hyne's Surprise. A new early variety, and perhaps the earliest of the true freestones. Medium; white, with a bright red cheek; flesh white, juicy and of an agreeable flavor. Last of July.

Iron Mountain. Similar to Ford's Late, introduced from Iron Mountain, N. J. Freestone; large;

pure white skin; flesh white to the stone, solid, juicy, sweet and excellent. Oct.

Italian Dwarf. A remarkable little tree, well suited for orchard house culture. Freestone; medium or rather small; white; flesh white, juicy, with a pleasant flavor. A specimen in a pot, only 2 feet high, produced a dozen fine Peaches. Sept.

Klondike. Originated in York county, Pa., very like Fox's Seedling, and remarkable for size and beauty late in the season. Very large; whitish, nearly covered with brilliant red; flesh white, juicy, sweet and of delicious flavor. Middle of Sept.

Large Early York. Medium to large; roundish; whitish, with marblings and spots of red and bright red cheek; flesh white, juicy, fine-grained, rich and excellent. Last of August.

Lemon Cling. A large and beautiful Peach from South Carolina. Clingstone; large, oblong; yellow, with a brownish red cheek; flesh yellow, firm, with a rich, subacid flavor. Last of Sept.

Lord Palmerston. Large English variety, grown by Thos. Rivers. Whitish, with a pink cheek; flesh firm, melting, rich and juicy. Last of Sept.

Magnum Bonum. A large and handsome Peach introduced from Maryland, where it is very popular, and of excellent quality; yellow flesh. Last of Sept.

Mary's Choice. Also introduced from the Maryland orchards, where it is popular in some sections, either for market or family use. Large to very large; yellow, with fine red blush on one side, and of good quality. Sept.

Matthew's Beauty. A cross between Elberta and Smock. Fruit large; skin golden yellow streaked with red; flesh yellow, firm and excellent flavor. Ripens two weeks after Elberta.

Mayflower. From North Carolina; is one week earlier than Sneed and is absolutely red all over, making it a very valuable variety for market.

Moore's Favorite. Originated in Odessa, Del., and highly esteemed where known. Similar to Oldmixon Free. Large, roundish, with a suture; white, with a large bright blush; flesh white, juicy, fine, with a rich, vinous flavor. Early Sept.

Morris White. Freestone; medium to large, oval; creamy white, occasionally with a dull red cheek; flesh white, juicy, melting, sweet, rich and somewhat firm. Middle of Sept.

Mountain Rose. Medium to large; roundish; whitish, nearly covered with a pretty red; flesh white, juicy, sweet and somewhat vinous. Vigorous and productive. First of Aug.

New Prolific. Large yellow; ripens just after Crawford Early. Fine quality and a good shipper.

Niagara. Originated in Niagara county, N. Y. Similar to Elberta and better in quality, ripening a little later. Tree hardy and healthy and has resisted all attacks of leaf curl and other diseases.



Peaches, continued

Oldmixon Free. One of the most profitable market varieties of American origin. Freestone; large, mostly roundish; pale yellowish white, with deep red cheek and marblings; flesh white, tender, sugary and of vinous flavor. First of Sept.

Reeves' Favorite. From Salem, N. J. Freestone; large, roundish or somewhat oval; yellow, with a red cheek; flesh yellow, melting, juicy, vinous, with a pleasant flavor. Middle of Sept.

Sallie Worrall. Large, roundish; creamy white, shaded with light red; flesh white, melting, juicy, rich and vinous. Last of Sept.

Salway. A fine English Peach, succeeding well here, both for market and home use. Large; yellow, with a red cheek; flesh deep yellow, melting, juicy, rich and of fine flavor. First of October.

Smock's Free. From Middletown, N. J., and one of the most profitable market varieties. Large, oval, somewhat compressed; light yellow, mottled with red, sometimes with a red cheek; flesh yellow, somewhat rich and juicy. Last of Sept.

Sneed. An Alabama seedling, originating from the Chinese Cling. Clingstone; medium to large, oval; rich creamy white, with beautiful red cheek; flesh white, very sweet and juicy. Early July.

Stephens' Rareripe. Large; white, shaded with red; flesh white, rich, vinous, juicy, excellent flavor. Hardy and regular bearer. Last of Sept.

Stump the World. An excellent market Peach from N. J. Freestone; large, roundish; creamy white, with a bright crimson cheek; flesh white,

juicy, high-flavored. Vigorous and productive. One of the best of the later Peaches. Last of Sept.

Susquehanna. *Griffith.* From central Pennsylvania. Very large; deep yellow, with a showy red cheek; flesh yellow, sweet, juicy, with a delicious rich flavor. Only a moderate bearer. Sept.

Triumph. Almost freestone; large; yellow, nearly covered with red; flesh yellow, juicy, with a very agreeable flavor. First of July.

Troth's Early Red. Medium, roundish; whitish, with a bright red cheek in the sun; flesh white, sweet, juicy and pleasant. Last of July.

Waddell. Fruit medium; white nearly covered with red; flesh firm, rich and sweet. Last of July.

Wager. Medium, oblong oval; light golden yellow; flesh yellow, juicy, firm, sweet and slightly vinous. Very productive and hardy. Early Sept.

Ward's Late Free. Medium to large, roundish; white, with a handsome red cheek; flesh white, rich, melting, juicy and excellent. First of Oct.

Wheatland. Large to very large; roundish; deep yellow, shaded with crimson; flesh yellow, juicy, sweet and of fine quality. First of Sept.

Wonderful. Not unlike Smock in appearance. Freestone; large, globular; rich golden yellow, partly covered with red; flesh yellow, rich, firm and high-flavored. Productive. Last of Sept.

Yellow Rareripe. Freestone; large, roundish; deep orange-yellow, occasionally dotted with red; flesh deep yellow, melting, juicy, with a rich vinous flavor. Last of Aug.

PLUMS

To be certain of a good crop of European Plums, it is necessary to spread a sheet over the ground beneath the tree, and then, by sudden but gentle jarring, the diseased fruit and insects will fall off, when they should be destroyed. For the convenience of our customers we have divided our list of varieties into three sections, which, although somewhat artificial, will convey a general idea of the adaptability of the various kinds to the uses for which they are intended.

Section I—European Plums

Although some of the following varieties originated in this country, their parentage is undoubtedly European, and they are in most respects different in growth and character from both the Japanese and native Chickasaw Plums. In this list the most luscious varieties are to be found; although less reliable than the newer Japanese forms, all may be grown with little trouble and expense, provided due attention is given to prevent the curculio from destroying crops.

Bradshaw. *Niagara.* Large, oval-obovate; reddish purple, with a light blue bloom; flesh yellowish, juicy, pleasant, partly adhering to the stone. A vigorous grower; very good. Aug.

Coe's Golden Drop. Very large, oval; light

yellow, with rich red spots on the sunny side; flesh yellow, somewhat firm, rich, sweet, delicious and adhering closely to the stone; very good. Last of September.

General Hand. Very large, roundish oval; deep golden yellow, slightly marbled; flesh pale yellow, moderately juicy, sweet and good; freestone. Sept.

German Prune. Very large, long, oval; purple, with a thick blue bloom; flesh green, firm, sweet; separates freely from the stone. Tree bears enormous crops, hanging late; vigorous. Sept.

Imperial Gage. Above medium, oval; pale green until fully ripe, when it is tinged with yellow; flesh greenish, juicy, melting, rich and fine flavored. Quality best. Early Sept.



A block of Plum trees in our Nursery

European Plums, continued

Lombard. Medium, roundish; delicate violet-red, with a thin bloom; flesh yellow, juicy and agreeable, adhering to the stone. Tree very vigorous, hardy and productive. August.

Moore's Arctic. Tree healthy, vigorous and hardy, medium; purplish black covered with thin blue bloom; flesh greenish yellow. Juicy and sweet but coarse.

Reine Claude de Bavay. Large, roundish; greenish yellow, faintly striped, with a thin bloom; flesh yellow, melting juicy, sugary, rich and excellent; freestone. Last of Sept. and first of Oct.

Shropshire Damson. Medium, obovate; purple, covered with a thick blue bloom; melting, juicy, subacid, separating partially from the stone. Tree exceedingly productive. Sept.

Section II—Native Plums

Wild Goose. An improved variety of the Chickasaw, of strong growth and comparatively free from the depredations of the curculio; large; bright red, with a gray bloom; juicy, sweet and good. Very productive. Last of July.

Section III—Japan Plums

This class of Plums is the most popular for the middle states, they bear enormous crops and the fruit is not injured by the curculio, which makes the growing of the European varieties almost prohibitive unless the jarring process is resorted to.

Abundance. Large, roundish; freestone; amber, turning to a rich cherry-color with a whitish bloom; flesh light yellow, juicy, tender, sweet and excellent. Vigorous and very productive. Aug.

Apple. Nearly freestone; large, reddish purple; flesh pale red, firm, sweet or subacid, rich and high-flavored. Middle of September.

Burbank. Large, nearly globular; clear cherry-red, with thin lilac bloom; flesh deep yellow, rich, very sweet, with a peculiar and agreeable flavor. Vigorous, and very early bearer. Last of August.

Chabot. Clingstone. Large, oblong; yellow, almost covered with carmine; flesh yellow, firm, subacid, very good. Last of July.

Chalco. Large, flattish; deep reddish purple; flesh yellow, very sweet, exceedingly fragrant and almost stemless. Middle of Sept.

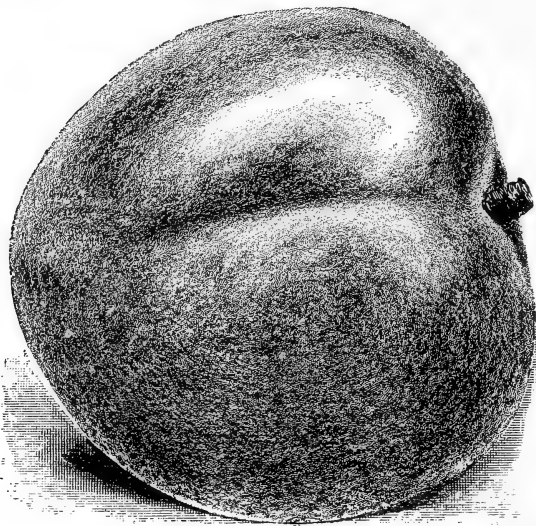
Hale. Clingstone. Large, round; bright orange, mottled with cherry-red; flesh yellow, juicy and delicious, slightly subacid. Vigorous and prolific. Middle of September.

October Purple. Another Burbank seedling. Large, roundish; purplish maroon; flesh yellow, juicy and sweet. Tree hardy, very prolific, and a strong, upright grower. Last of Sept.

Ogon. Large, roundish, with deep suture; freestone; bright golden yellow, with faint bloom; flesh yellow, firm, rich, sweet and dry; excellent for canning. Tree a vigorous grower. Last of July.

Persian Purple. *Prunus Pissardi*. Although grown for its beautiful purple foliage, the fruit is used for cooking. Fruit bright crimson, but not first quality. Makes a fine effect when planted in beds of shrubbery. Usually free from curculios.

Red June. The earliest good large Plum of its class. Large; clingstone; purplish red, with blue bloom; flesh yellow, solid, juicy and subacid. A good keeper. Middle to end of June.



Wickson Plum

Japan Plums, continued

Satsuma. Large, globular; dark purplish red, with blue bloom; flesh dark red, firm, juicy and of excellent quality. Tree a strong, vigorous grower. Succeeds well at the North. Aug.

Simon's. *Prunus Simoni*. A hardy Plum from China. Large, flat; cinnamon-colored; flesh firm, sweet, with a peculiar aromatic flavor and rather astringent. Aug.

Wickson. Large to very large, obconical; changing from waxy white to pink and carmine-red; flesh firm, sugary and excellent. One of the most popular of the Japan varieties, and should be in every collection. One of Burbank's seedlings. Sept.

Willard. One of the earliest Japan Plums tested in the north. Medium; roundish, oblong; bright red, dotted freely with small spots; flesh white, firm, and of excellent quality. Hardy and productive. First of Aug.

CHERRIES

For the convenience of planters we have catalogued our Cherries under two headings—the Hearts and Bigarreus, which embrace all the sweet varieties, and the Dukes and Morellos, constituting those with a tart flavor. Stiff, clayey soils, retentive of water, will surely cause disease and premature death. Cherries, especially the tart varieties, will pay a good interest on the capital invested for market, and all classes are indispensable to the fruit garden for home consumption. Spraying with poisonous solutions destroys all insect enemies and insures a crop of perfect fruit, which is an absolute necessity if intended for marketing.

Section I—Hearts and Bigarreus

Black Eagle. A popular English Cherry, succeeding well with us. Above medium; deep purple or nearly black; flesh deep purple, juicy, tender, rich and delicious. First of July.

Black Tartarian. Perhaps the finest table Cherry in the entire list. Very large, heart-shaped; bright, glossy purplish black; flesh tender, juicy, rich and of best quality. Middle of June.

Downer's Late. Medium size, roundish heart-shaped; bright red, mottled with amber; flesh tender, sweet, with a fine flavor. First of July.

Elton. Large, pale yellow, spotted with red next the sun; flesh almost tender, juicy, rich and luscious. Middle of June.

Governor Wood. One of Professor Kirtland's seedlings. Large, roundish heart-shaped; light yellow marked with red; flesh tender, juicy, sweet, rich and delicious. Middle of June.

Ida. Large; yellow; red cheek; sweet and luscious, one of the best light-colored Cherries. June.

Mercer. Large; dark red; sweet; good shipper. Tree hardy and an upright grower. June.

Napoleon. A grand Bigarreau Cherry. Very large, heart-shaped; pale yellow, with a bright red cheek; flesh very firm, juicy, with an excellent

flavor. Tree a strong grower and productive. First of July.

Ohio Beauty. Another of Professor Kirtland's fine seedlings. Large, obtuse, heart-shaped; yellowish, nearly covered with red; flesh juicy, brisk and tender. Very good. Middle of June.



Napoleon Bigarreau Cherries



Early Richmond Cherries

Heart and Bigarreau Cherries, continued

Rockport. One of the handsome Kirtland seedlings. Large, roundish heart-shaped; fine beautiful red color; flesh firm, juicy, sweet and rich, with a pleasant flavor. Early in June.

Schmidt's Bigarreau. A Belgian seedling. Large, roundish oblate; dark blackish purple; flesh dark, juicy, with a fine rich flavor. July.

Windsor. One of the newer varieties of much promise. Large; liver-colored; flesh firm and of excellent quality. Tree hardy, very productive, and remunerative for market. July.

Yellow Spanish. One of the most profitable of the firm-fleshed Cherries. Very large, obtuse heart-shaped; whitish yellow, with bright red cheek; flesh pale yellow, juicy, rich, sweet and delicious. Last of June.

Section II—Dukes and Morellos

The Dukes of this class make large trees, almost or quite as large as the Hearts and Bigarraeus, while the Morellos grow about the same size as peach trees.

Dyehouse. Medium; bright red; flesh soft, tender, juicy, rather rich, with a sprightly subacid flavor. The tree is a good grower and very productive. Middle of June. Ripens a week before Early Richmond.

Early Richmond. *Early, or True Kentish.* Indispensable for marketing or home use. Medium-round; fine deep red; flesh melting, juicy, sprightly,

rich acid flavor. Vigorous and productive. Middle of June.

English Morello. A very profitable and excellent variety. Quite large, roundish; very dark red or nearly black; flesh purplish red, juicy, tender, with a pleasant acid flavor. Last of July.

Mayduke. A popular and desirable old variety. Large, roundish or obtuse heart-shaped; bright or dark red; flesh light red, juicy, melting, tender, rich and excellent at maturity. A superior sort. First of June.

Monarch. A magnificent new tart Cherry, introduced from the West. Very large; dark red; very superior flavor. Fine for canning. Tree hardy and productive. July.

Montmorency. Excellent for every purpose and very profitable. Large; red; flesh rich and pleasantly acid. Hardy, vigorous and very productive. A sure cropper. Should be in every orchard. First of July.

Ostheimer. A splendid new Cherry from Germany of the English Morello type; very hardy, large, heart-shaped, almost black; flesh reddish purple, rich subacid and fine. Last of July.

Reine Hortense. This variety is of French origin and very desirable. Large, roundish, elongated; bright lively red, somewhat marbled; flesh juicy, tender, subacid and delicious. Unsurpassed for market. Last of July.

Royal Duke. Large; dark red; flesh reddish; tender, juicy and rich. Ripens about two weeks after Mayduke. Last of June.



APRICOTS

The Apricot is subject to the same drawbacks to its culture as the plum, the curculio being prone to attack all smooth-skinned fruits more or less. The remedy as prescribed under the heading of plums should be practiced also with the Apricot. The trees should be planted on a northern exposure, to prevent injury from late frosts to the blossoms, which require a check to their too early expansion.

The Russian varieties were brought to the United States by the Russian Mennonites, several years since, and have proven universally hardy, annual and abundant bearers.

Alexis. *Russian.* Another new and very handsome variety. Medium to large; yellow, with a red cheek; flesh slightly acid. July 10.

Breda. An excellent small Apricot for the desert. Small, roundish; dark orange; flesh deep orange, rather juicy, rich, high-flavored, and freestone. Fine for preserving. First of August.

Harris. Large, roundish, with deep suture; rich golden yellow, with faint blush; excellent quality and freestone. First of July.

J. L. Budd. *Russian.* Probably the best of its class. Large, white, with red cheek; flesh sweet

but rather dry, with a sweet, almond-like kernel. First of August.

Moorpark. Probably the most popular old Apricot known. Freestone. Large, roundish; deep orange color; flesh bright orange, firm, juicy, with a rich and luscious flavor. Makes a compact tree. First of August.

Peach. An old French variety, and one of the finest of the list. Very large, roundish, somewhat flattened; yellow to deep orange; flesh yellow, rich, juicy, and of high flavor. Last of July to first of Aug.

NECTARINES

This fruit is a mere sport of nature, or, rather, variety of the peach, with a smooth skin; subject, like the plum and apricot, to being stung. The remarks under those headings apply to this.

Boston. Large; deep yellow, with a bright blush and mottlings of red; sweet and of a peculiar pleasant flavor; freestone. First of Sept.

Early Newington. Large; pale green, nearly covered with red; flesh greenish white, juicy, rich and sweet. Clingstone. First of Sept.

Early Violet. Rather large, roundish; pale yellowish green, nearly covered with red; flesh whitish, rich, juicy, melting and delicious. Last of Aug.

Elrue. Freestone; medium; pale green, almost covered with deep violet or red; flesh melting, juicy, rich and high-flavored. Last of Aug.

Hunt's Tawny. Freestone; medium, roundish ovate; pale orange; with red cheek; flesh deep orange, juicy, rich and melting. First of Aug.

Red Roman. A very old English Nectarine. Clingstone; large roundish; greenish yellow, with a brownish red cheek; flesh greenish yellow, firm, juicy, rich and vinous. First of Sept.

Stanwick. One of the latest English varieties. Freestone; medium; pale greenish white, shaded with violet; flesh white, rich, juicy, tender and sugary. It was grown in England from a stone brought from Syria. Last of Sept.

QUINCES

The Quince is, in all varieties, unfit for eating raw. It is, however, much esteemed when cooked. For preserving it is everywhere valued, and an excellent marmalade is made from it. When stewed, it is frequently used to flavor apple sauce, pies and other pastry. Dried Quinces are excellent.

It requires a good, deep soil, which should be kept clean and mellow, with an occasional dressing of manure; but does not need a severe pruning like many other varieties of fruit; a careful thinning out of the old decayed wood will be sufficient. Keep a vigilant search after the borer.

Apple, or Orange. Large to very large, roundish, with short neck; golden yellow; flesh firm and of fine flavor. Oct.

Bourgeat. Very large, roundish; golden yellow; smooth and tender when cooked. Oct. to Feb.

Champion. Noticeable for its early bearing and superb appearance. Very large, mostly oval;

deep yellow; excellent quality. Tree very prolific and vigorous. A good keeper.

Meech's Prolific. Large, roundish pear-shaped; bright orange; fragrant and of excellent quality. Ripens in midseason.

Rea's Mammoth. Large, roundish, with short neck; golden yellow, very beautiful; quality excellent. Strong grower and productive. Oct,



MULBERRIES

Downing's Everbearing. This variety originated from the seed of the *Morus multicaulis*, fruit large, of a dark purplish black color; flesh juicy, rich, sprightly and delicious. Very productive and ripening its fruit in succession for a long time.

Russian. Brought from southern Russia by the Mennonites. Tree very hardy and a rapid grower; specimens six years old are 20 feet high and 6 to 8 inches in diameter; very prolific, commencing to

fruit when three years old; the berries are fine for jellies.

Teas' Weeping Mulberry. Grafted on a straight stem, it forms a perfect umbrella-shaped head, with long, slender branches drooping to the ground; one of the prettiest small weeping trees.

White Mulberry. *Morus alba*. Native of China. Fruit white and sweet, formerly grown for feeding silk worms.

NUT-BEARING TREES

Almond, Hard-Shell. A fine, hardy variety, with a large, plump, sweet kernel. The tree is very ornamental, as it produces large, showy, pale rose-colored flowers in abundance.

Almond, Soft-Shell. This is the "Ladies' Almond" of the shops, and although preferable to the former, is not quite so hardy. The shell is very tender and the kernel sweet and rich.

Chestnut, American. Forms a large ornamental tree, producing freely, rather small, but very sweet, fine-flavored nuts. Although inferior to the others in size, it is decidedly the best in quality.

Chestnut, Japan. An introduction of recent years, bearing early and abundantly. Nuts of very large size, three or four in a bur.

Chestnut, Numbo. One of the newer forms of the Spanish Chestnut, producing extra-large nuts of good quality.

Chestnut, Paragon. Another of the Spanish class, yielding heavy crops of large nuts of excellent flavor. The tree is quite hardy and bears at an early age. Very profitable.

Chestnut, Spanish. *Castanea vesca*. This is the ordinary European species, forming a beautiful large tree, with mostly heavy crops of large nuts, sweet and excellent when roasted. A rapid grower.

Filbert, American. *Wild Hazelnut*. This forms a large, branching shrub, from 6 to 8 feet high, producing good crops of nuts, which are inferior in quality to the English, but the plants are hardier.

Filbert, English. The fruit of this is larger and of better quality than that of our native species, but the plants are not quite so reliable. Nuts with thin shell and fine-flavored.

Pecan. A large slender-growing tree found generally in the southern states, valuable for its oblong thin-shelled smooth nuts, with delicious kernels.

Shellbark. *Carya alba*, or *Hicoria ovata*. A handsome tall native tree, producing large crops of excellent nuts. It is partial to rich, moist localities, but will succeed in any good soil. Our stock is grown from extra-fine, thin-shelled nuts.

Walnut, Black. *Juglans nigra*. A valued large native tree, yielding roundish, rough dark nuts of excellent flavor. It is a rapid grower, and the timber is greatly in demand.

Walnut, English. *Juglans regia*. Not entirely hardy in the middle states, except in sheltered locations. It forms a tree of the largest size and bears good crops of delicious, thin-shelled nuts.

Walnut, Japan. *Juglans Sieboldi*. Nuts large and borne in clusters. Shell rather harder than the preceding, but with sweet, rich flesh and pleasant flavor.

Walnut, White, or Butternut. *Juglans cinerea*. A small or medium-sized tree, with gray bark, yielding oblong, pointed nuts, with rough shell and rich, agreeable flesh. Grows rapidly and is an attractive tree for lawn or landscape. Sept.

GRAPES

Hardy or outdoor Grapes should be grown on a well-drained border, made rich and deep, with a liberal supply of ground bones, ashes, etc.

The best trellis, in our estimation, is made as follows. Procure strong chestnut or cedar posts, 8½ feet long; set them 6 feet above ground and stretch wires, tightly fastening them to each post by means of large-headed wrought nails; these wires should be 18 inches apart, and the posts set about 8 or 10 feet distant; plant the vines, one in each space, between the posts.

But one shoot should be permitted to grow the first year, which may be pinched off at the top wire to induce development. The second year, two shoots or canes may be allowed to grow after cutting off the former season's wood close to the bottom wire. At the end of the year these two canes should be trained horizontally along the bottom wire, one in each direction. New shoots will then start out and all buds



GRAPES, continued

rubbed off excepting those desired to form the fruiting canes, say about 1 foot distant. These should be regularly tied to the wires and occasionally pinched to induce fruitfulness. Bagging is a necessity if best results are expected and desired. An annual application of ground bone and rotted manure is a requisite to success.

Agawam. *Rogers' No. 15.* Bunch large, shouldered; berry large, round, reddish brown, tender, vinous and of excellent flavor.

Brighton. Introduced from western New York. Bunch large, shouldered; berries medium to large, round, dark red, tender, very little pulp, sweet, juicy, slightly aromatic and very good. Ripens early.

Campbell's Early. A new early Grape, highly recommended. Bunch large, shouldered; berry large, glossy black, with blue bloom, juicy, sweet, and free from foxiness. Vine of strong, hardy growth.

Catawba. An old popular variety. Bunch medium, shouldered; berry large, reddish purple, juicy, sweet, rich, aromatic and excellent.

Clinton. Bunches medium or small; berry small, almost round, black with bloom, juicy, with a pleasant flavor when thoroughly ripe. A strong, hardy grower and very prolific.

Concord. One of the most popular and reliable varieties we possess. Bunch large, compact and shouldered; berry large, round, almost black with blue bloom, juicy, buttery and very sweet.

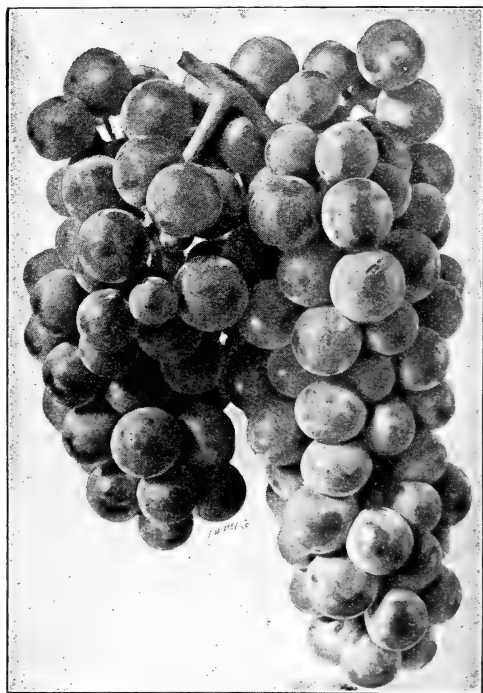
Delaware. Bunch small, compact; berry small, round, translucent light red, very sweet and aromatic. An early and abundant bearer. Vine hardy.

Eaton. A seedling of the Concord, but larger and more showy. Bunch very large, shouldered; berry very large, round, purplish with blue bloom, juicy, tender, vinous and very pleasant.

Green Mountain. From the Green Mountains of Vermont. Bunches rather large and shouldered;

berries medium, greenish, white, thin skin, juicy, with tender and sweet pulp. Aug.

Merrimac. *Rogers' No. 19.* Bunch medium, rather short; berry large, round, black, juicy, tender, sweet and of excellent quality. Ripens among the earliest.



Campbell's Early Grape



Grapes, continued

Moore's Diamond. Berry medium, round, greenish white, rich, juicy, sweet and pleasant. A vigorous grower and prolific bearer.

Moore's Early. Another valuable hardy variety from Massachusetts. Bunch large; berry large, black with a blue bloom, juicy, sweet and of an agreeable flavor. Ripens very early and highly esteemed for market.

Niagara. Bunches large and compact, sometimes shouldered; berry large, light greenish yellow or amber-colored, thin skin, melting, sweet, juicy, with a fine aroma and flavor. Productive and a regular bearer.

Pocklington. A seedling from the Concord. Bunch very large, compact, sometimes shouldered; berry very large, round, light golden yellow, juicy, sweet to the center, and of a pleasant flavor.

Salem. *Rogers' No. 22.* Bunch large, short and compact; berry large, round, reddish copper color, tender, juicy, sweet, with a pleasant aromatic flavor. Ripens soon after Delaware. Originated in Salem, Massachusetts, by E. S. Rogers.

Ulster. Bunches small to medium and compact; berries medium to large, dull copper color, juicy, sugary, rich and very pleasant. Vine very vigorous, exceedingly productive and hardy.

Wilder. *Rogers' No. 4.* One of the best of its class. Bunch large, compact, shouldered; berry large, round, black with a blue bloom, juicy, sweet, rich, tender and somewhat aromatic.

Worden. Similar to but better than Concord. Bunch large, shouldered; berry large, black, with light bloom, juicy, sweet, lively and pleasant flavor. A strong grower and very productive.

RASPBERRIES

Columbian. Very large; dark red, almost purple; rich, juicy and delicious. Wonderfully prolific and a good shipper; very vigorous, requiring more room than other varieties.

Cumberland. A mid-season Blackcap. Fruit of the largest size and loads its canes with handsome fruit of the best quality. One of the best market berries.

Cuthbert. *Queen of the Market.* Cane tall and vigorous; berries large, conical, rich crimson and very handsome; best quality, and carries well; very productive. Season medium to late.

Golden Queen. Large; beautiful translucent yellow color, and exceptionally firm. Very productive. Season same as Cuthbert.

Gregg. One of the largest Blackcaps, and a popular market variety; very prolific; season medium.

Kansas. One of the best of the early ripening Blackcaps; the berries are large and showy; hardy.

Marlboro. A variety from Ulster county, N. Y. Canes very strong, healthy and vigorous; berries large, bright red color, good quality and a good shipper; early.

Miller's Red. A stout, healthy, vigorous grower and very hardy. Bright red, with a rich fruity flavor. Ripens with the earliest.

Munger. An exceptionally fine new Blackcap. It is larger, hardier, more productive, better in quality and ripens five to eight days later than Gregg.

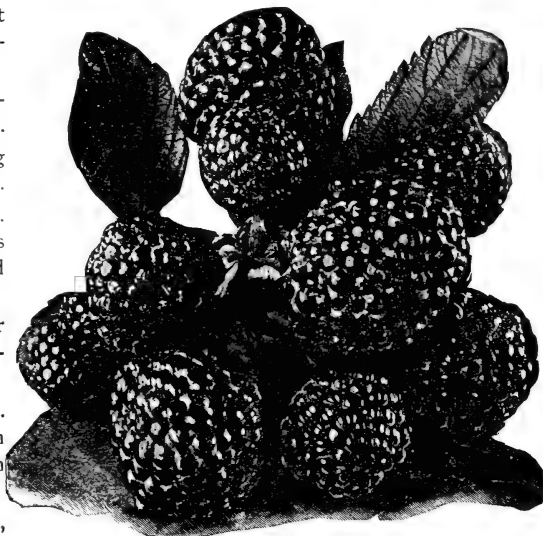
Plum Farmer Raspberry. From Adams county, Pa. Claimed to be the largest, most productive,

best-colored and most attractive blackcap in cultivation. Ripens early, and bulk of the crop in a short time.

Souhegan. It is large, of good quality, enormously productive, and ripens a week to ten days before other Blackcaps. Very hardy.

WINEBERRY

A Japanese Raspberry. Fruit borne in clusters in a hairy bur something like a chestnut; of a bright red color and particularly good for jellies. Very vigorous and hardy.



Cumberland Raspberries

BLACKBERRIES

The cultivation of this very delicious and healthy fruit is attended with so little trouble and expense that every garden, however small, should have at least one dozen plants. For cooking purposes they are unsurpassed, and will yield a dark wine of excellent quality.



BLACKBERRIES, continued

Early Harvest. A valuable very early variety. Medium size, glossy black and of excellent quality. Of dwarf growth and vigorous.

Eldorado. Large, jet-black, melting, sweet and delicious, without a hard core.



Ward Blackberries

Iceberg. Fruit white when ripe. More of a curiosity than valuable.

Kittatinny. Large, glossy, black, juicy and sweet. Originated on the Kittatinny Mountains, Warren county, New Jersey.

Logan. *Raspberry-Blackberry.* Form, size and shape of large blackberries; dark red; mild, agreeable flavor. A curious novelty for the garden.

Lucretia. *Dewberry.* Best of its class. A low, trailing form, with large, handsome, sweet and luscious fruit. Hardy and productive.

Rathbun. Very large, juicy, sweet and delicious. Hardy, vigorous and a very heavy cropper.

Snyder. Medium size, no hard core, and of excellent quality. Hardy, and a vigorous grower.

Wachusett Thornless. Medium, juicy, sweet and of excellent flavor. Canes with a few thorns.

Ward. Fruit larger than Eldorado; rich, sweet, tender and melting; no hard core; the best market berry. Canes very hardy.

Wilson's Early. A very popular and excellent berry. Large; very early, sweet and luscious. One of the best market varieties. Ripens evenly.

GOOSEBERRIES

AMERICAN

Houghton. A hardy native kind, bearing annually enormous crops of fine fruit, and free from mildew; a very vigorous grower. It is also known as the American Seedling.

Downing. A seedling of Houghton; upright grower, very vigorous and productive. Fruit much larger than Houghton; whitish green flesh, soft, very juicy and good. The best for family use and very profitable for market.

Smith's Improved. The fruit is large, light green, sweet and excellent; very productive. Grown from seed of the Houghton by Dr. Smith, of Vermont.

ENGLISH

Industry. *Whinham's.* Especially adapted to our climate. Of the largest size; color dark dusky red and quality good. Enormously productive, twenty-six tons of this fruit having been grown on 3½ acres of land, in England.

CURRANTS

No garden, however small, is complete without a liberal supply of Currants. There is no fruit which stands neglect so well, or that will repay the cultivator more for good liberal culture and plenty of manure. White Hellebore sprinkled over the bushes when the dew is on them will effectually destroy the currant worm.

Cherry. *La Versailles.* Valued mainly on account of its size. Bunch rather short; berries very large, deep red, quite acid. Shoots stout, erect and vigorous.

Fay's Prolific. Bunch long; berry large, rich red, subacid and fine-flavored. Strong grower and exceedingly productive. Very valuable.

Lee's Prolific. Bunch medium; berry very large, quite black, and unsurpassed for jellies. A strong, vigorous grower and reasonably productive.

London Market. Very popular in Michigan,

where it is grown largely for the Chicago markets. Fruit of good size, bears early, and is enormously productive.

North Star. Bunch very long, berry large, deep red, of excellent quality.

Perfection. This is a cross between Fay's Prolific and White Grape. Color red; as large or larger than Fay's and clusters average larger. Prolific.

White Grape. Bunch moderately long; berry very large, yellowish, sweet and excellent. The best white Currant grown. Very productive.



Section of a 6-acre block of 1-year Asparagus

ASPARAGUS

Barr's Mammoth. Very large size; specially tender and of fine flavor.

Columbian Mammoth. Very large shoots of a white color, productive and vigorous.

Conover's Colossal. An old favorite variety, both for market and home use.

Giant Argenteuil. A French variety said to be early, producing large stalks and a good cropper. A very popular variety.

Palmetto. This is a variety from the South, succeeding well wherever tested. It is very early, large and succulent, of excellent flavor.

RHUBARB

Myatt's Linnæus. This is, without doubt, the best variety in cultivation. Stalks long and heavy, without being in the least stringy or tough, with a mild subacid flavor.

SCIONS OF FRUIT TREES

Can be furnished at the rate of one dozen for the price of a tree of the same variety; larger quantities at special rates.

NUMBER OF TREES OR PLANTS SUFFICIENT TO PLANT AN ACRE, AT VARIOUS DISTANCES APART

FEET	NO. OF TREES	FEET	NO. OF TREES
3 by 3.....	4,840	12 by 12.....	302
4 by 4.....	2,722	15 by 15.....	193
5 by 5.....	1,742	18 by 18.....	134
6 by 6.....	1,210	20 by 20.....	108
8 by 8.....	680	25 by 25.....	69
10 by 10.....	435	30 by 30.....	48

DISTANCES FOR PLANTING

	FEET APART
Standard Apples.....	30 to 35
Dwarf Apples.....	8
Standard Pears.....	25
Dwarf Pears.....	10
Standard Cherries, Sweet.....	25
Standard Cherries, Morello.....	12
Plums, Peaches, Apricots and Nectarines.....	15
Quinces and Grapes.....	10
Currants, Gooseberries, Raspberries and Rhubarb.....	4
Asparagus.....	3 x 4 to 6



SPRAYING CALENDAR

We present this table to assist Fruit Growers in spraying at the right time and with the correct solution. Good results cannot be expected without the spraying is carefully done. Never spray when fruit trees are in bloom.

NAME OF PLANT INSECT AND FUNGI	VARIOUS APPLICATIONS OF SPRAYING SOLUTIONS			
	First Spraying	Second Spraying	Third Spraying	Fourth Spraying
APPLE. —Codling Moth, Canker Worm, Bud Moth, Apple Scab.	When buds are swelling apply Bordeaux.	Before blossoms open, Bordeaux and Paris Green.	When blossoms have fallen, Bordeaux and Paris Green.	Twelve days later, Bordeaux and Paris Green.
PEAR. —Codling Moth, Leaf Blight, Scab and Psylla.	Before buds swell, Bordeaux.	Before blossoms open, Bordeaux Kerosene Emulsion for Psylla.	After blossoms fall, Bordeaux and Paris Green. Kerosene Emulsion for Psylla.	Fourteen days later, Bordeaux and Paris Green.
PLUM. —Curculio, Rot, Aphis.	Just before buds open, Bordeaux and Paris Green.	After blossoms fall, Bordeaux and Paris Green.	Twelve days later, Bordeaux and Paris Green.	Kerosene Emulsion for Aphis.
CHERRY. —Rot and Aphis.	Just before buds open, Bordeaux, Kerosene Emulsion for Aphis.	When fruit has set, Bordeaux.	Twelve days later, Bordeaux, if signs of Rot are present.	Kerosene Emulsion if Aphis is present.
PEACH. —Rot, Mildew and Curculio.	As buds are swelling, Bordeaux.	Before Blossoms open, Bordeaux and Paris Green.	After blossoms have fallen, Bordeaux and Paris Green.	Two weeks later, Bordeaux and Paris Green.
GRAPE. —Rot and other Fungous Diseases.	When buds are beginning to swell, Bordeaux.	As buds are opening, Bordeaux.	Two weeks later, Bordeaux.	Two weeks later, Bordeaux.

Any of the above formulas for spraying, with full directions for pruning and after management, will be sent to customers free on application.

Why Hoopes, Bro. & Thomas Company's Trees are so Popular

West Chester is situated 27 miles west from Philadelphia, and 500 feet above tidewater; the soil is a gravelly loam, the best for making plenty of fibrous roots and good healthy, well-ripened wood. This is the reason trees grown in this section have become so popular and well known over the country, as they transplant easily, and start right off to grow, while those raised in a heavy, stiff soil make very few fibers, only large or tap-roots, and when transplanted stand frequently for two or three years, until they make new roots to push the growth. Trees grown on low lands will often make a stronger and more luxuriant growth, but such growth is usually at the expense of the trees, as they fail to properly ripen their wood before winter, and hence are liable to injury by extreme cold. This can only be discovered by cutting off some of the limbs, when the center, or heart, will be found to be black. The trees may live for a few years after transplanting, but will soon die or become poor, stunted specimens.

Our soil at West Chester is peculiarly adapted by nature to the healthy growth of young nursery stock, so that we are able to develop hardy, healthy and thrifty trees, vines and plants with an abundance of fibrous roots. Fibrous roots and good healthy well-ripened wood are the two essentials to successful transplanting and long life.

Trees grown on high, bleak situations are exposed to the cold winter winds, and are more hardy and rugged than those grown in more protected places; this is why our trees do equally well in cold, bleak New England, or the blizzard prairies of the West and Northwest and in the warm sunny South. West Chester grown trees transplant better, come into bearing earlier, and give better general satisfaction than those grown in any other section of the country.



Section of Evergreens on our Office Grounds

Part II. Ornamental Department

Nursery Stock for Ornamental purposes has always been a leading feature in our business, and we can show specimens of many of the leading varieties planted from thirty to fifty years; from our experience during that time we are enabled to advise purchasers of the best things to plant. We are constantly adding to our stock everything that is new and valuable and believe we have the best collection of choice Ornamentals in the country.

EVERGREENS (Coniferae)

The cultivation of Conifers has been a leading specialty in this establishment since its origin. With a view of testing the adaptability of the various species and varieties to our climate, a "Pinetum," four acres in extent, was planted with specimens of each kind that could be procured. A number of the tender and half-hardy kinds have succumbed to the severity of our winters, but the health and beauty of the many grand specimens remaining attest the congenial character of our soil and climate to their needs. With the knowledge thus gained by practical experience we have eliminated from commercial propagation many kinds of doubtful usefulness in our climate, and added others which have proven of great value.

The following list, therefore, contains only such as we believe we may recommend to planters without reserve, our object being not to swell the list of names, but rather to make a reliable suggestive Catalogue that will benefit our patrons.

ABIES. Fir

A genus composed mostly of large trees of a formal, conical outline and rich in color. The leaves are, for the most part, in two ranks, flattened, dark green, glossy and whitened beneath, the cones always standing erect with the scales deciduous at maturity. They delight in deep rich soil, and in such will make an astonishingly rapid growth.

A. balsamea. *Balsam Fir, Balm of Gilead.* A well-known native species, beautiful when young, but short-lived, and eventually presenting an open, straggling form. It is deep green in color, rapid in growth and unquestionably hardy.

Abies Cephalonica. *Cephalonian Fir.* An exceedingly beautiful tree from the mountains of Cephalonia, where it attains the height of 60 feet. It has proved quite hardy with us. The leaves are dark green and shining above, with a silvery glaucous tint beneath. The form is strictly conical and the tree a rapid grower.

A. concolor. *White Silver Fir.* A native of the western states, from Arizona and Utah to the California Sierras, and, unlike many of the Pacific slope conifers, is quite reliable in the eastern states. It eventually forms a very large tree, with leaves long, pale glaucous green, and very



Abies concolor, continued

attractive. Closely allied to *A. grandis*, but with rough gray bark.

A. Nobilis. *Noble Silver Fir*. The foliage is of a rich glaucous green color, and the tree attains a great height. From northern California.

A. Nordmanniana. *Nordmann's Fir*. One of the most popular and available Evergreen trees known to planters. Unquestionably hardy, of rapid growth, perfect in outline, with foliage of rich, deep glossy green, it thus combines all the



Abies Nordmanniana

excellence needful in a tree of this class. It is a native of the Crimea, but succeeds in all localities and situations.

A. pectinata. *European, or Common Silver Fir*. A tree of the largest size, of rapid growth, with deep shining green foliage, and is in some sections quite popular.

A. pectinata, var. compacta. *Dwarf Silver Fir*. A beautiful little evergreen forming a compact mass of twigs, of a rounded outline, deep glossy green in color, and quite hardy. It is rare in collections and of very slow growth.

var. pyramidalis. *Pyramidal Silver Fir*. An extremely attractive and very rare conifer. The form is strictly upright, remarkably dense, and usually branched thickly from the ground up, ending in a straight leading shoot; foliage dark shining green.

CEDRUS. The True Cedar

This genus is very popular in the South, where they are all hardy and make stately trees. The following are reasonably hardy with us.

C. Atlantica. *Mount Atlas Cedar*. Makes a large tree and is the hardiest of the true Cedars. The leaves are of a light greenish color and grow in clusters along the branches. The tree is rather open and loosely formed.

C. Atlantica glauca. *Mount Atlas Silver Cedar*. A variety of the above with beautiful glaucous bluish green foliage. Grows more compact and is harder than the species.

C. Libani. *Cedar of Lebanon*. This fine Conifer is reasonably hardy in the Middle States. Although making a regular conical-shaped tree when young, it eventually assumes a perfect tabular tree with age, the branches being strictly horizontal.

CHAMAECYPARIS. Retinospora

This charming group of Conifers from Japan has been separated from the Cupressus, or true Cypress. They are so satisfactory and so exceedingly ornamental, that they are the most popular evergreen of the present day. They should be sheared or clipped every year to keep them in good shape.

C. obtusa. *Obtuse-leaved Retinospora*. This is the largest of the group, attaining a height of 60 to 100 feet in Japan. It is a rapid-growing, handsome tree, with small, scale-like, light green leaves and drooping branches. Its hardiness is unquestionable throughout the Middle States.

var. Lycopodoides. This variety has a curious twisted-like growth, the foliage being much compressed.

var. filicoides. *Fern-like Retinospora*. A very attractive garden variety, attaining a height of 4 or 5 feet, and bearing a general resemblance to its parent, *C. obtusa*. Its name is derived from the peculiar and graceful arrangement of its branchlets. The leaves are deep green, with a slight glaucous tint on the under side.

C. pisifera. *Pea-fruited Retinospora*. A smaller tree than *C. obtusa*, slender in growth, with elegant feathery foliage. It is a hardy, graceful and rapid-growing evergreen, with yellowish green foliage marked with glaucous lines below.

var. compacta. *Compact Retinospora*. A very pretty form of the *pisifera*, making a round, compact small tree.

var. argentea. *Silver-spotted Retinospora*. A very distinct and pretty variety of the above, having the foliage liberally sprinkled with pure white dots. It is fully as hardy as the species.



Chamaecyparis pisifera, var. aurea. *Golden-variegated Retinospora.* Also very distinct and pretty. It is quite as hardy and conspicuous as the preceding, and should be more liberally used in collections. From the neighborhood of Yeddo in Japan. All the young foliage is marked with rich golden yellow.

var. filifera. *Thread-like Retinospora.* An elegant drooping form, especially noticeable in a group of conifers. The thread-like pensile branchlets are very graceful, and are furnished with small, sharp-pointed, glossy green leaves. Unusually distinct.

var. filifera aurea. *Golden Thread-like Retinospora.* This variety keeps its bright yellow color all the year, making it very attractive and striking.

var. plumosa. *Plume-like Retinospora.* A small tree, 15 or 20 feet high, but only a garden form of some species in Japan. It forms a very dense-growing large bush of conical habit, bears the shears well, and is certainly a great addition to our cultivated dwarf conifers. Branchlets numerous and feathery, with deep green leaves.

var. plumosa aurea. *Golden Plume-like Retinospora.* Without doubt one of the most striking and desirable little evergreens for our climate. Habit of growth similar to preceding, but with its terminal shoots and young foliage of a bright golden yellow tint. Very distinct, hardy, and useful for grouping. Should be frequently sheared.

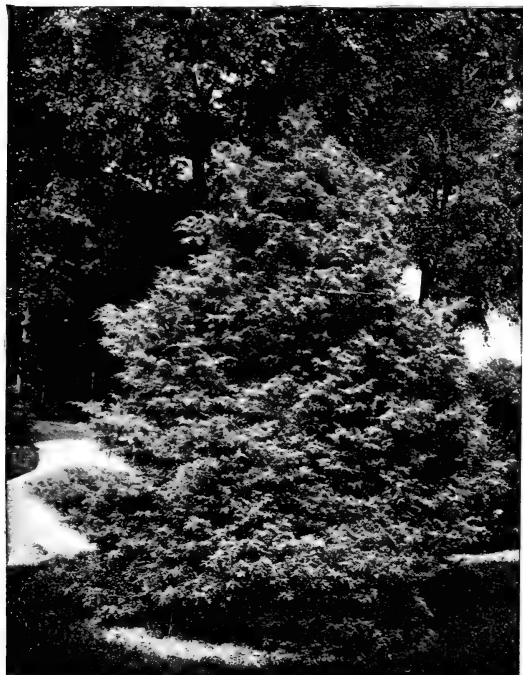
var. squarrosa. We have two very distinct



Retinospora squarrosa Veitchi

Chamaecyparis pisifera, var. squarrosa, continued

forms grown under this name, Sieboldi and Veitchi; the latter is better in every way. A beautiful heath-like plant, with sharp-pointed, silvery foliage, and of compact, pyramidal growth. Makes a fine contrast in color with the plumosa aurea.



Retinospora plumosa aurea

CRYPTOMERIA. Japan Cedar

Extensively planted in Japan on avenues and for timber. There is only one species, but several varieties. The best, in our opinion, is the following.

C. Japonica, var. Lobbi. This variety is hardier than the species, more compact, and the bright green leaves change to a beautiful bronze color at the approach of cold weather.

JUNIPERUS. Juniper

A genus of small to medium-sized trees and shrubs widely disseminated over the world, from the arctic to the tropical regions. The name Cedar being applied to some of the species is a misnomer, as the Junipers are very distinct from the last-named genus of true Cedars.

J. communis alpina. *Canadian Trailing Juniper.* A dwarf creeping form of the Common Juniper, with distinct bright, silvery foliage. A native of our most northern states, and especially suited to rocky hillsides and the borders of groups. Being somewhat impatient of removal, due care must be exercised in planting both the species and the following variety.



Juniperus communis, var. alpina aurea. *Golden Trailing Juniper.* A well-marked form of the preceding, with bright golden yellow foliage and a prostrate growth. It is strictly hardy, and one of the choicest dwarf conifers in the entire list. For grouping with other low-growing evergreens the contrast in tint and habit is exceedingly pleasing.

var. Cracovia. *Polish Juniper.* A native of the vicinity of Cracow, quite hardy and of attractive habit. It is erect in growth and not unlike the Irish Juniper in general character, although somewhat resembling the Swedish variety.

var. Hibernica. *Irish Juniper.* It is remarkably fastigate in growth, with all the branches closely appressed, and the foliage a silvery bright green. A valuable evergreen for the colonial style of gardening. Growth rapid and uniform, requiring little or no trimming.

var. Suecia. *Swedish Juniper.* This variety is less stiff and precise in growth than the preceding, being rather more straggling in habit, with a peculiar yellowish glaucous tint pervading every portion of the plant.

J. Sabina. *Savin Juniper.* A hardy species from the sub-alpine districts of southern Europe as well as the northern portions of the United States and Canada. It is of broadly spreading habit, very deep green, and useful for planting along the front of groups, etc. Especially desirable for rockwork and planting in light sandy soil where many evergreens refuse to thrive.

J. squamata. *Scaly-leaved Juniper.* It is strictly prostrate when young, but with age gradually assumes an upright form and eventually makes a compact, straggling bush. The foliage is glaucous and very attractive.

J. Virginiana. *Red Cedar.* This native tree is so well known it scarcely needs a description. It is very useful in massing with other evergreens.

var. glauca. *Blue Virginian Cedar.* One of the prettiest forms of the common Red Cedar. Its silvery foliage makes it very attractive.

var. pendula. *Weeping Red Cedar.* The branches all have a pendulous tendency, making a pretty weeping evergreen.

PICEA. Spruce

The true Spruces are natives of the colder sections of Europe and Asia, as well as of North America, and are, with few exceptional species, entirely reliable with us. They are among the most ornamental of our entire list of available trees, growing readily in any good soil and forming regular shaped pyramidal specimens even when old.

P. Alcoquiana. *Alcock's Spruce.* One of the newer evergreens from Japan, where it grows to

Picea Alcoquiana, continued

a large size, with light green leaves marked underneath with silvery lines. It has proved entirely hardy and very distinct in general character. Of rather slow growth when young, but rapidly increasing in size after being fully established.

P. Canadensis (Syn., *P. alba*). *White Spruce.* A medium-sized tree from the northern portions of the United States, Canada, etc., with a compact habit of growth, regular conical outline, and soft glaucous green color.

P. Engelmanni. *Englemann's Spruce.* Another of the newer conifers from our Rocky Mountain range which succeeds admirably in the East. It is not only quite hardy, but appears free from the disease that affects most trees from the Pacific coast. It grows from 80 to 100 feet high, with horizontal branches and bluish green leaves, and is altogether one of the most beautiful and available in the entire list of ornamental Spruces.

P. excelsa. *Norway Spruce.* This highly popular evergreen is so well known as to scarcely need a description. It is a general favorite with all planters at the North on account of its hardiness, rich green color, graceful habit and adaptation to all well-drained soils. It is a native of Europe, and forms a large-sized specimen, branched to the ground, with numerous drooping branchlets which add to its attractiveness. A rapid grower.

var. inverta. *Weeping Norway Spruce.* A remarkably drooping form of the foregoing species, with the branches hanging closely to the body of the tree. The leaves are slightly larger and of a brighter green than the type. It is quite as hardy as the above, and worthy a place in collections of such odd sports.

var. pyramidalis. *Pyramidal Spruce.* A very remarkable variety, strictly upright in its growth; and resembling the Lombardy Popular in habit; in fact, the arrangement of its branches is exactly the reverse of those on the type. It is hardy, easily grown and increases rapidly in size.

P. orientalis. *Eastern Spruce.* One of the most beautiful and easily grown of all the rarer classes of conifers. A native of Armenia, where it forms dense forests on the mountain sides. It is not so large as the Norway Spruce, but very dense in structure, with numerous short, sharp, deep green leaves. The outline is strictly pyramidal, with less of a drooping character than the Norway, although fully as hardy and attractive.

P. polita. From Japan. Leaves bright green, rigid and placed thickly around the stout branches. One of the most distinct Spruces and very beautiful and attractive.

P. pungens. *Colorado Silver Spruce.* Perhaps the most attractive conifer in our entire list of



Picea pungens, continued

available species. It is entirely hardy, of comparatively rapid growth, has an elegant glaucous green tint, and a perfect outline.

P. pungens glauca. *Koster's Colorado Blue Spruce.* Unquestionably the finest of all the evergreen family; the beautiful silvery blue color together with its fine pyramidal form combine to make it the most desirable tree for all collections. Koster's variety has not quite so good a color.

P. pungens glauca pendula. *Weeping Blue Spruce.* A weeping form of the Koster variety; the branches are drooping.

PINUS. Pine

In an economic point of view this genus is the most valuable in the Coniferae, and for ornamental purposes it is second to none. The several species are distributed over the greater portion of the world, in all extremes of climate and soil. Fortunately we of the Middle States are enabled to succeed with a large number of beautiful kinds, of which the following are the most reliable for general culture.

P. Austriaca. *Austrian Pine.* A rapid-growing species from the mountains of the Austrian Empire. It has very stout branches, with long, rigid bluish green leaves, and presents a massive appearance in contrast with other conifers. It is very hardy, not specially particular in regard to soils, and valuable for windbreaks, etc.

P. Cembra. *Swiss Stone Pine.* A handsome hardy species from central Europe and northern Asia, with a regular conical outline, deep green foliage and compact growth. It is a small or medium-sized tree, although in its native habitat it attains a height of 100 feet. Unlike many other Pines, it retains its branches to the ground.

P. excelsa. *Himalayan, or Bhotan Pine.* One of the most elegant evergreens. The branches are disposed in regular whorls, with long, slender, drooping, glaucous green leaves. It is a native of the Himalaya mountains, growing at high elevations, and is quite hardy here. Attains a height of from 50 to 100 feet.

P. montana (Syn., *P. Mugho*, *P. Pumilio*, etc.). *Mountain Pine.* This dwarf species is of the very greatest importance to the landscape gardener, owing to its extreme hardiness, dark somber green color, low, spreading growth, adaptation to rough soils, etc. It is a native of the sub-alpine districts of central Europe, where it grows either as a straggling bush of 5 feet or a small dense tree of 15 feet.

P. Strobus. *White Pine.* This is the most imposing of all the Pines native to the eastern states. It forms a large, straight tree, from 100 to 160 feet in height, with horizontal branches clothed



Picea pungens on our office grounds

Pinus Strobus, continued

with long, slender, slightly glaucous leaves. The most popular Pine for general planting, and makes a majestic tree when full grown.

P. sylvestris. *Scotch Pine.* A rapid-growing, very hardy evergreen, especially adapted for windbreaks and grouping. It is a native of central and northern Europe, forming large trees with pleasing glaucous green leaves. Although quite ornamental when young, this species is more picturesque than beautiful with age.

SCIADOPITYS. Umbrella Pine

From Japan. The growth of this tree is different from all other evergreens. The genus consists of only one species.

S. verticillata. A tall tree of narrow, pyramidal habit, with linear, rather large needle-like leaves in whorls. See cut page 28.



TAXUS. Yew

Unfortunately this attractive genus of evergreens is not so reliable in our climate as we might wish, but when duly sheltered and in proper soil, the different species frequently attain good size and become among the most delightful of large shrubs. For grouping, as well as formal gardening, they are especially adapted, and as they bear free pruning their value is greatly enhanced.

T. baccata. *Common, or English Yew.* An old and popular evergreen seen in all English gardens. Of very slow growth, but in time attains the height of a small tree. Very bushy, with rich dark glossy green foliage and spreading habit.

var. aurea. *Golden Yew.* The margin and tips of the leaves of this variety have a golden yellow

Taxus baccata, var. aurea, continued

color making it very conspicuous and handsome. Has a low bushy habit.

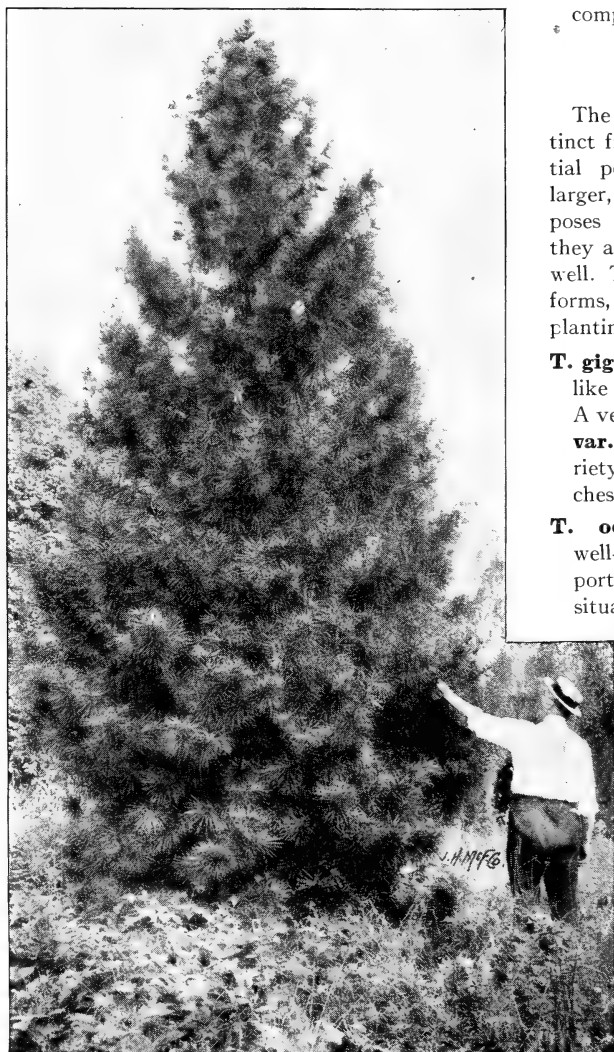
var. elegantissima. Similar to the above, but of a slightly different color.

var. fastigiata. *Irish Yew.* A remarkable upright form, very distinct and handsome. Has a rich dark green color.

var. fastigiata aurea. *Golden Variegated Irish Yew.* Resembles the above, but has rich yellow marblings and spots on the young shoots.

var. gracilis pendula. *Weeping English Yew.* A very striking variety with pendulous branches. The best weeping evergreen, and is said to be perfectly hardy.

var. cuspidata. *Japanese Yew.* A small tree from Japan that has proven entirely hardy with us. It has large, dark glossy green leaves and a compact habit of growth.



Sciadopitys verticillata. A specimen in our collection (see page 27)

THUYA. Arborvitæ

The Arborvitæ of North America are very distinct from those of the Old World in many essential points. Our plants are more hardy, grow larger, and are adapted to a greater variety of purposes than the Oriental varieties. For hedging they are cheap, grow quickly, and bear the shears well. The species, as well as the numerous garden forms, are especially adapted for ornamental planting.

T. gigantea (*T. Lobbii*). *Lobb's Arborvitæ.* Grows like the Siberian Arborvitæ but more upright. A very compact and pyramidal form.

var. aurea. *Lobb's Golden Arborvitæ.* A variety of the preceding, with the tips of the branches a golden yellow color.

T. occidentalis. *American Arborvitæ.* This well-known tree is a native of the northern portion of our continent, is entirely hardy in all situations, and not particular in regard to soils.

It forms a dense tree, from 25 to 50 feet high, growing in an erect conical form, and is of rapid growth. No evergreen bears the shears with less injury than this.

var. Brinckerhoffi. *Brinckerhoff's Arborvitæ.* A distinct and exceedingly attractive variety, resembling the Siberian Arborvitæ in outline and density, but of a charming golden yellow tint. During the spring months the young growth is specially noticeable and contrasts beautifully with the darker hue of other forms. It is quite hardy and reliable in the northern states.

var. compacta. *Parsons' Arborvitæ.* A dwarf, compact form of rather slen-



Thuya occidentalis, var. compacta, continued

der growth and pale yellowish green color. Is a popular, reliable variety. It is of slow growth, broad and compact, and suitable for cemeteries.

var. conica densa. *Dwarf Dense Arborvitæ.* One of the best of the smallest bush-like evergreens, with a conical outline. Of very compact growth and dark green color. One of the most popular of the dwarf Arborvitæ.

var. ericoides. *Heath-like Arborvitæ.* Although merely a dwarf form of the American Arborvitæ, with the first leaves of the species perpetuated—in other words, an arrest of vegetation—it is still a curious and pretty little plant. It is of conical form, very dense with linear, sharp-pointed leaves, changing to a dull brownish red in winter.

var. George Peabody. This is the most conspicuous and elegant of variegated or golden-tinted conifers. It is a rapid grower, having foliage plentifully marked with deep golden yellow. As in all of this class of trees, the early summer growth is much more beautiful, and quite hardy, combining all the elements of success.

var. globosa. *Globe-headed Arborvitæ.* Another of the popular dwarf forms, globular in outline, and dense in construction. It is a very pretty shade of green, needs no clipping, and is always reliable.

var. pumila. *Booth's Dwarf Arborvitæ.* An excellent dwarf variety, raised in a German collection. It makes a neat little bush, very dense and perfect in form. The outline is perfectly rounded and the color a fine shade of green.

var. pyramidalis. *Pyramidal Arborvitæ.* A remarkably columnar form, with all the branches rigidly erect; dark green, compact, very desirable. As conspicuous as the Irish Yew and much harder than that popular English evergreen.

var. pyramidalis Douglasi. *Douglas's Pyramidal Arborvitæ.* A comparatively new and very distinct variety from Waukegan, Illinois. Like the above, it is exceedingly erect in habit, very compact, and of a pleasing deep green color.

var. Sibirica. *Siberian Arborvitæ.* This well-known popular variety is one of the most useful evergreens for the northern states, combining as it does excessive hardness, regular conical outline, and a peculiar dark green and remarkably dense foliage.

var. Vervæneana. *Vervæne's Variegated Arborvitæ.* A remarkably attractive kind, the foliage being beautifully marked with golden yellow

Thuya occidentalis, var. Vervæneana, continued

spots. During early summer the young growth is tinted with the same bright hue, which changes in winter to a brownish orange.

var. aurea (Biota). *Golden Arborvitæ.* The young growth is a rich golden yellow. It is round, compact and handsome.

var. aurea nana. *Dwarf Golden Arborvitæ.* A beautiful dwarf compact evergreen with foliage of a golden yellow color. One of the best dwarf evergreens.

var. elegantissima. *Rollinson's Arborvitæ.* An upright fastigate growth and fine golden tint; the latter is retained throughout the season.

var. falcata nana. *Falcate Arborvitæ.* From Japan. Is of a dense conical form with light green foliage. Very compact.

var. pendula (T. filiformis). *Weeping Oriental Arborvitæ.* The pendulous thread-like branches are very curious and effective.

var. pyramidalis aurea. A pyramidal form with the leaves tipped with a golden yellow color.

TSUGA. Hemlock

A small genus of evergreen frequently classed with the Spruces, although botanically distinct. The trees belonging to this group are all of remarkably graceful habit, and their foliage presents a more light and feathery appearance than that of either the Spruces or the Firs, to both of which they are closely allied.

T. Canadensis. *Hemlock Spruce.* A well-known native of the northern states, and among our most valued hardy conifers. It is a tree of the largest size, of a regular conical form, with long, slender branches, drooping gracefully to the ground. The dark green foliage is remarkably pleasing, and the growth rapid in congenial soils. One of the best evergreens for ornamental hedge planting, as it holds its dark green color through the winter. It is better known in cultivation as *Abies Canadensis*, one of the most beautiful and useful of native evergreens. Found in hilly or rocky woods; very common northward.

var. nana. *Dwarf Hemlock.* A curious dwarf form which is very much smaller in all its parts than the common Hemlock; in fact, it is merely a little round-headed, compact bush, very twiggy and deep green in color, and is exceedingly valuable for the shrubbery and all kinds of ornamental landscape work.

We shear or clip most of our Evergreens every year, consequently they are all compact and handsome. By this process we get perfect specimens. If not pruned when young, you cannot get a compact tree from the ground.



DECIDUOUS TREES

It has been our constant endeavor, from the commencement of this business, to test all species and marked varieties of deciduous trees that would endure our climate, and in consequence we have discarded a large number that have failed to meet the requirements of planters. Of the many standard reliable kinds, we annually grow immense blocks for parks, cemeteries, etc., so that we are at all times prepared to supply fine specimens at reasonable rates. We endeavor to grade, dig and handle these with the greatest possible care, and with the experience of more than half a century to aid us, we feel that our system is nearly perfect. Of many species we can furnish extra-sized specimens that have been transplanted and pruned to avoid danger in removing.

ACER. Maple

A. Campestre. *English Maple.* Native of Europe, forming a medium-sized tree, with peculiar corky bark and spreading branches. It is a singularly pretty tree on the lawn, entirely hardy and easily grown on dry soil.

A. Colchicum rubrum. *Red Colchicum Maple.* An attractive species from Japan, hardy, and of medium size. Leaves are dark green above and paler below. The greatest beauty of this tree lies in the bright red tint of its young leaves and twigs.

A. Ginnale. *Siberian Maple.* A small tree from Japan; leaves bright green, turning to a brilliant red in the fall.

A. Negundo (Syn.; *Negundo aceroides*). *Box Elder, Ash-leaved Maple.* A large native tree of very rapid growth. It is suited to all soils, although found in a wild state, along streams, etc.

A. Pennsylvanicum. *Striped Maple.* A small tree, native of the northern states. Its marked characteristics is the greenish bark, striped with dark lines.

Acer platanoides. *Norway Maple.* The most popular species of the Maple group, either for the lawn or street planting. It forms a perfect, rounded head, with large, deep green foliage, is quite hardy, very compact, grows rapidly.

var. dissectum. *Cut-leaved Norway Maple.* An attractive and very distinct form, with bright green leaves cut into deep lobes. The tree forms a round, shapely head, grows quickly and makes an exceedingly beautiful specimen.

var. purpurea. *Ceneva Purple-leaved Maple.* One of the newer introductions, with fine large foliage, light purple in spring but intensifying in color as the season advances. Good grower and very distinct.

var. Reitenbachi. *Reitenbach's Purple-leaved Maple.* The large glossy foliage of this variety opens green but gradually changes to a rich purple in summer. It is a more erect grower than the others.

var. Schwedleri. *Schwedler's Purple-leaved Maple.* A distinct and beautiful variety, with large, deep purple leaves in spring and early



Acer platanoides, var. Schwedleri, continued

summer. Purplish green late in the season. A hardy and vigorous tree for the lawn.

A. polymorphum. *Japan Maple.* See Deciduous Shrubs for descriptions.

A. Pseudo-platanus. *Sycamore Maple.* From Europe, forming a large tree of rapid growth, with spreading branches. It is inferior to the Norway Maple, mainly on account of its wonderful propensity to produce seed, hence a more open head and ragged appearance.

var. purpureum. *Purple-leaved Sycamore Maple.* Distinct from the species on account of the pretty purplish tint on the under side of the foliage. Vigorous grower, hardy.

A. rubrum. *Red, Scarlet, or Swamp Maple.* One of our most valued native trees, although of rather slower growth than some. Leaves of medium size, changing in autumn to the most gorgeous tints of scarlet, crimson and orange.

A. saccharinum (Syn., *A. dasycarpum*). *Silver Maple.* This common native species is a tree of the largest size and most rapid growth. It was for many years the most popular street tree grown, but its large size is a detriment for this purpose. Leaves silvery white beneath.

var. pyramidalis. *Pyramidal Silver Maple.* An upright form resembling the Lombardy Poplar.

var. argentea. The leaves of this variety are striped and splashed with white markings. It is a very conspicuous tree, extensively planted in Europe but liable to burn with our hot summer suns.

Acer saccharinum, var. aurea elegantissima.

The leaves of this variety are variegated golden color, but are liable to burn with us.

var. aurea marginata elegantissima. The edges of the leaves are of a golden yellow color and are also liable to burn with the sun.

var. Wierii. *Wier's Cut-leaved Maple.* One of the most available of the cut-leaved class of ornamental trees. The tree is a strong grower with pendulous branches, and the foliage is fern-like in appearance. Forms a beautiful specimen on the lawn, hardy, and very distinct.

A. saccharum. *Sugar, or Rock Maple.* A charming tree for avenues or lawn planting, with a large, perfectly rounded head, dense in construction, and with bright green leaves. It forms a specimen of large size, is moderately rapid in growth, and always in demand.

AESCULUS. Horse-Chestnut

A genus distinguished from Pavia by roughness of fruit and somewhat rougher leaves. Quite popular for street trees and lawn planting, although subject to leaf-blight during summer. Entirely hardy and adapted to all soils, but growing best in moist and loamy soil. The flowers are showy and interesting.

Æ. Hippocastanum. *Common Horse-Chestnut.*

A large tree, native of northern India. Has a symmetrical head, large, digitate leaves and large, conspicuous panicles of white spotted flowers. Growth rather slow. A fine tree for avenue planting.



Avenue of Norway Maples (see page 30)



Æsculus Hippocastanum var. fl. pl. *Double-flowering Horse-Chestnut*. Not so strong a grower as the species. The flowers are double and very showy.

var. rubra. *Red-flowering Horse-Chestnut*. The flowers are red, which makes a very pretty contrast with the common Horse-Chestnut.

AMELANCHIER. Service Berry

A. Canadensis. *Shadbush*. A native tree growing from New England to the Gulf. Its white flowers are among the earliest shown in the spring. The berry is edible when it becomes a dark purple color.

AILANTHUS. Tree of Heaven

Formerly was a very popular tree for street planting in the built-up portion of large cities, as its vigorous habit enables it to withstand the smoke and gases.

A. glandulosa. *Tree of Heaven*. A rapid-growing tree from China not affected by gas or smoke.

BETULA. Birch

A genus of hardy trees, some of which are natives of the United States. They are rapid in growth, graceful in form and well adapted for landscape work, either in groups or avenues.

B. alba. *White Birch*. This is the common Birch of Europe, with silvery white bark, small, smooth leaves, and a pleasing drooping habit.

var. laciniata. *Cut-leaved Weeping Birch*. One of the most popular ornamental trees, owing to its charming drooping habit and elegant fern-like foliage. It succeeds best at the North, where it is less likely to lose its lower branches.

var. pendula Youngi. *Young's Weeping Birch*. A very graceful form, with long, slender branches reaching to the ground. It is entirely distinct and very striking in a collection.

var. purpurea. *Purple-leaved Birch*. The leaves are a bright purple color in the spring, but fade during the summer to a dull green.

var. Nigra. *Rivers', or Red Birch*. A tall native tree, with deep green foliage turning to a dull yellow in the fall.

B. lenta. *Sweet, or Cherry Birch*. Attains the height of about 50 feet, with numerous slender branches which are pleasantly aromatic.

BROUSSONETIA

A rapid-growing tree from Asia, said to withstand the smoke and gases of cities which injure so many trees.

B. papyrifera. *Paper Mulberry*. Native of China, where it is cultivated for paper-making. It has large round leaves, and is a rapid grower.

CASTANEA. Chestnut

This is a genus of decided merit, not only for its crops of edible nuts, but also for its value as a lawn tree. The trees are generally of large size, with ample foliage, rapid in growth, succeeding in light dry soils. See Fruit Department for varieties.

CERCIS. Red-Bud

The only recommendable and thoroughly reliable species attaining the size of a tree is described below. It is beautiful when in flower, which is in advance of the leaves in early spring.

C. Canadensis. *American Judas Tree*. A small, native tree, hardy and well adapted for the outer edge of groups, etc. It blooms very profusely in clusters of a reddish purple color, the earliest flowering tree; very desirable during last of April and May.

CARPINUS. Hornbeam

C. Caroliniana. *American Hornbeam*. A small tree making a dense round head. Resembles the Beeches especially in the bark of the trunk.

CATALPA. Indian Bean, Etc.

A genus composed of about seven species, some of which are natives of this country. The large foliage and long panicles of beautiful white or mottled flowers, as well as their rapid growth, have caused them to be very popular with planters. Suited for low grounds.

C. Bungei. *Dwarf Catalpa*. From eastern Asia, but quite hardy with us. It forms a round, dense head, and is especially attractive when grafted standard high on a straight stem.

C. bignonioides, var. purpurea. *Purple-leaved Catalpa*. The young shoots and foliage early in the season show a decided purplish tint; otherwise as in the species.

C. ovata (C. Kämpferi). *Japan Catalpa*. A distinct species from Japan, of only medium height, but with numerous erect panicles of elegant yellowish flowers rather earlier than the others.

C. speciosa. *Larger Indian Bean*. A western species growing to a large size, and with faintly mottled flowers, in large showy clusters, followed by curious long beans that give the tree a most picturesque aspect in winter.

CERCIDIPHYLLUM. Kadsura Tree

A rapid-growing, hardy tree from Japan, only one species belonging to the genus.

C. Japonicum. A compact pyramidal tree. Leaves bright green, changing to yellow and scarlet in the autumn.



CERASUS. Cherry

The newer introductions of Double-flowering Cherries from Japan, which literally cover the tree with their double flowers, are exceptionally showy and handsome.

C. Padus. *European Bird Cherry.* A small tree with spreading branches. Native of Europe. When covered with long, drooping clusters of white, highly fragrant flowers in the spring, it is very attractive.

C. pendula. *Japanese Weeping Cherry.* A truly beautiful small or medium-sized tree with long, very slender branches and a multitude of pretty pink flowers. It is quite hardy and forms a conspicuous object in a collection, resembling a living green fountain.

C. Pseudo-Cerasus. *Japanese Double-flowering Cherry.* These magnificent trees, of which we cultivate two distinct colors, cannot be adequately described, except by comparing them with charming double roses. One form has white flowers and the other bright pink bloom. Both are hardy and reliable.

C. serotina. *Wild Black Cherry.* A well-known native species, forming quite a large tree, with elongated racemes of conspicuous white, fragrant flowers preceding globular, dark purple fruit.

CHIONANTHUS. Fringe Tree

A small genus, with one representative in this country, all small trees with very beautiful, fringe-like flowers, followed by a dark purplish fruit, shaped like an olive.

C. Virginica. *American Fringe Tree.* A small tree, producing, in May and June, numerous panicles of snow-white drooping flowers.

CLADRASTIS. Yellow-Wood

C. lutea (Syn., *C. tinctoria*, *Virgilia lutea*). *American Yellow-Wood.* A small tree, with smooth bark, smooth leaflets, and beautiful white flowers. It is a native of Kentucky and Tennessee, but quite hardy and reliable in cultivation.

CORNUS. Dogwood

Although a large genus, the following is the only species that may be classed as a small tree. It seems too well known to need a description, but is indispensable in all ornamental grounds, either grown singly or for grouping.

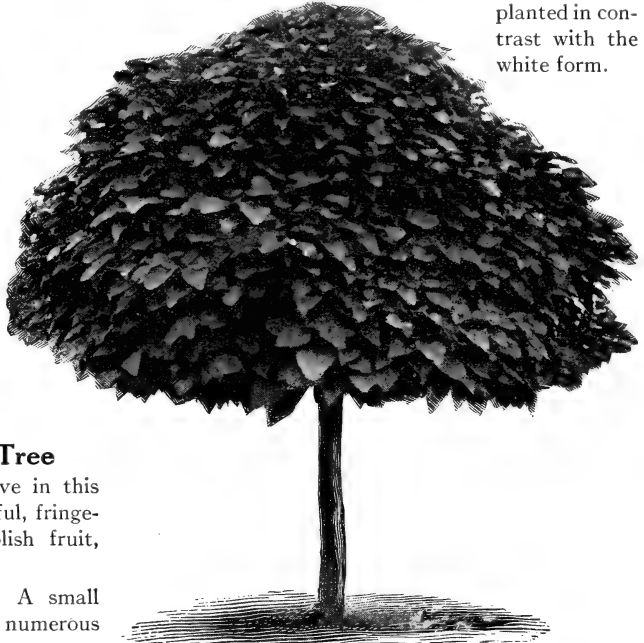
C. florida *Flowering Dogwood.* Usually a small tree, with rough bark and spreading branches. Leaves ovate, dark green, changing in autumn to brilliant crimson. The bracts of the involucre,

Cornus florida, continued

or floral covering, are pure snow-white and very abundant. The berry-like, bright scarlet fruit is also quite ornamental.

var. pendula. *Weeping Dogwood.* A decidedly pendulous form of the preceding, with all its good qualities and no defects. It is a remarkably conspicuous object on the lawn at all times, and should be extensively planted.

var. rubra. *Red-flowering Dogwood.* This differs from the parent in having the conspicuous bracts of the involucre bright rosy red or pink in color. The autumnal tints are fully as brilliant as in the other forms. It is undeniably one of the most deserving novelties introduced for many years, and appears to great advantage when planted in contrast with the white form.



Catalpa Bungei (see page 32)

CRATAEGUS. Thorn

A large family of mostly small trees and generally hardy at the North. The flowers are usually white or pink, in terminal corymbs, followed by drupe-like fruits that are quite ornamental when ripe.

C. Carrieri. Comes to us from Holland and is said to be the most beautiful Hawthorn.

C. Crus-galli. *Cockspur Thorn.* A small tree with dark glossy green leaves turning in the fall to bright orange and scarlet; has long sharp spines and bright red fruit.

C. monogyna alba fl. pl. *Double White-flowering Thorn.* A form of the Hawthorn, with clusters of pure white flowers resembling little roses, during May and June.



Crataegus monogyna, var. coccinea fl. pl. *Paul's Double Scarlet-flowering Thorn.* A conspicuous and very beautiful variety, producing scarlet flowers in the same manner, and as double as the above. A tree in bloom is a notable sight.

var. rubra fl. pl. *Double Red-flowering Thorn.* An excellent companion to the foregoing; inflorescence rose-colored or reddish, double and fine.

DIOSPYROS. Persimmon

Although there are quite a large number of Asiatic species belonging to this genus, there is but one that is entirely reliable at the North. The Persimmons are grown chiefly for their fruit, which is a large, pulpy berry, very astringent when unripe, but edible after being subjected to the action of frosts.

D. Virginiana. *American Persimmon, Date Plum.* Commonly a medium-sized tree, native of the United States, with dark, furrowed bark and deep green foliage. The fruit is roundish, reddish yellow and sweet.

D. Kaki. *Japan Persimmon.* Not hardy at the North, but reliable in the southern states, where it forms a small tree with profusion of large orange-like fruit of excellent quality.



Fagus sylvatica, var. purpurea

FAGUS. Beech

The Beeches, especially the different varieties of *F. sylvatica*, are of the greatest use in landscape gardening. They are all hardy and love a deep, rich soil to develop their greatest beauty. Mostly of large size, but not very rapid in growth.

F. Americana. *American Beech.* One of our finest native trees, with smooth bark, spreading branches and symmetrical head. The smooth, light-colored bark makes this tree look handsome in winter.

Fagus sylvatica. *European Beech.* This forms a grand specimen, of large size, has round, compact head and deep green foliage. The branches are almost universally upright in growth, while those of the American species are horizontal and drooping.

var. heterophylla. *Fern-leaved Beech.* A very handsome form, with charming fern-like foliage and perfectly rounded outline. It is reasonably rapid in growth when fully established, and makes an unusually attractive specimen.

var. pendula. *Weeping Beech.* One of the most effective and elegant drooping trees known. It forms a large specimen, with spreading pendulous branches and dark green, glossy leaves. Rather impatient of removal.

var. purpurea. *Purple-leaved Beech.* An indispensable ornament for every lawn. The rich purple foliage is so decided and beautiful that no other tree is better adapted for notable and charming contrasts in grouping. Our trees are all grafted from the celebrated "Rivers" variety, which is eminently superior to all other forms.

var. purpurea pendula. *Weeping purple-leaved Beech.* A somewhat recent novelty, uniting the peculiar lovely purple tints of the preceding with the decidedly drooping habit of the ordinary green-leaved weeping form.

FRAXINUS. Ash

All deciduous trees of medium or large size, very stately and well adapted for large lawns. Owing to a tendency to sport into all manner of curious varieties, there are quite a large number propagated, but, after thoroughly testing most of these, we have discarded all, mainly on account of the dreaded "borer."

F. Americana. *American White Ash.* One of our most majestic native trees; of large and rapid growth, with spreading branches. Very suitable for large lawns with abundance of space to develop its beauty. More reliable than *F. excelsior*.

GINKGO. Maidenhair Fern Tree

Professor Sargent says, "The Ginkgo is perhaps the most beautiful, as it certainly is the most interesting tree to be seen in Japan." The charming avenues in Washington, D. C., planted with this tree are proofs of its value for this purpose. A notable example is near the Dept. of Agriculture.

G. biloba (Syn., *Salisburia adiantifolia*). A medium-sized tree of upright growth, and in high esteem for lawn or avenue planting. It increases rapidly in size and is remarkably free from disease or insects. The only tree known that has no mid-rib in the leaf, which are similar to the Maidenhair Fern.



GYMNOCLADUS. Kentucky Coffee

A monotypic genus of a single native species, which grows to a large size; very tall, with long, naked branches almost destitute of branchlets, and bipinnate leaves. Flowers conspicuous, in terminal racemes followed by large, thick pods.

G. Canadensis (*G. dioica*). Kentucky Coffee.

A lawn tree of no mean decorative effect, owing to the exceptional aspect of its growth. It increases rapidly in size, and, being entirely hardy, may be highly recommended. A tall, large tree with rough bark.

HICORIA (*Carya*). Hickory

See Fruit Department for varieties.

JUGLANS. Walnut

See Fruit Department.

KOELREUTERIA

From China. It has proved entirely hardy and reliable. It is a small, very free-flowering ornamental tree with spreading branches.

K. paniculata. Panicle-flowered *Koelreuteria*.

Of small or medium size, with coarsely toothed, ovate leaflets, turning golden yellow in autumn. Flowers in large, loose terminal panicles, showy, yellow, preceding large bladderly capsules.

LABURNUM. Laburnum

Quite a large genus, composed mostly of shrubs, although the following may be classed as a small tree. Flowers pea-shaped and usually yellow in color.

L. vulgare (*Cytisus Laburnum*). Golden Chain. Beautiful pale green bark. The long, drooping racemes of golden yellow flowers are especially attractive.

LARIX. Larch

Cone-bearing trees, with deciduous leaves, pyramidal in growth and with long, drooping branches. Leaves needle-shaped, changing in autumn to bright yellow. Should be transplanted in autumn or very early in spring.

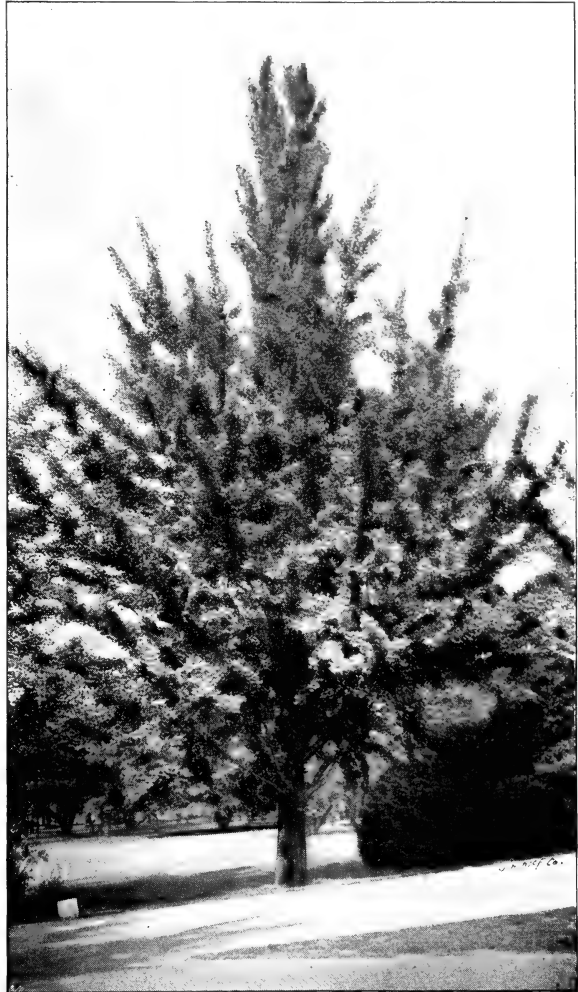
L. Europæa. European Larch. A first-class tree for the lawn; of rapid growth and large size. Decidedly the most valuable of the genus, and perhaps the most beautiful, the pendulous branchlets adding a charm to its perfect conical outline

var. pendula. *Weeping Larch.* This is a very distinct and striking form, with the branches contorted and drooping. When grafted standard high it makes a pretty weeping tree, with all the good qualities of the English Larch.

LIQUIDAMBAR. Sweet Gum

Large tree, with curious, star-shaped handsome leaves and rough, corky bark, both on the main stem and branches. Native of North America and very common at the South in low, moist ground.

L. styraciflua. Sweet Gum. It is a rapid grower when once established, and has elegant, glossy, deeply lobed foliage, forming a rounded, spreading head.



Ginkgo Tree (see page 34)

LIRIODENDRON. Tulip Tree

A small genus, belonging to the Magnolia family; it is no mean representative of that elegant group of ornamental trees. It is of the largest size.

L. Tulipifera. Yellow Poplar. This grand American tree is unequalled when permitted sufficient space to develop its proportions. As a large lawn tree it has no imperfections; should be included in the smallest list of showy flowering species.



MAGNOLIA. Magnolia

This magnificent family is indeed difficult to surpass in the flora of the world. Taking into consideration their rapidity of growth, clean healthy foliage, beautiful flowers, regularity of form, comparative freedom from insects and disease, and, lastly, their general hardiness, we cannot say too much in their favor.

Section I. American Magnolias

M. acuminata. *Cucumber Tree.* One of our largest native trees, forming a straight trunk, with oval, light green leaves and greenish yellow flowers in June. One of the most esteemed specimens for large lawns; of rapid, upright growth.

M. grandiflora. *Great Laurel Magnolia.* This magnificent native tree is found in the southern states, and, unfortunately, is not suited to our climate north of Washington. It has elegant, leathery, evergreen leaves, and large, pure white flowers.

M. macrophylla. *Great-leaved Magnolia.* Although a southern species, this succeeds admirably in the Middle States, forming a medium-sized tree, with leaves from 1 to 3 feet long, and immense white flowers.

M. tripetala (Syn., *M. umbrella*). *Umbrella Tree.* A rapid-growing, medium-sized species, with large, dark green leaves and large white, slightly fragrant flowers. Quite hardy and reliable here.

M. Virginiana (Syn., *M. glauca*). *Sweet Bay.* One of the most desirable small trees known to gardeners. The leaves are sub-evergreen, leathery, deep green above and glaucous beneath; flowers creamy white, deliciously fragrant.

Section II. Asiatic Magnolias

The trees described in Sec. II and III bloom before the leaves appear.

M. conspicua. *Yulan Magnolia.* A medium-sized tree from China, with obovate leaves and erect, pure white flowers. It is one of the most conspicuous and beautiful of the foreign species and well adapted for lawn purposes.

M. obovata (Syn., *M. purpurea*). *Purple Magnolia.* A large shrub or small tree with short, dark leaves and numerous dark purple tulip-like flowers. It is entirely hardy, and adapted for grouping with other large shrubs. Native of China.

M. stellata. *Star Magnolia.* A small tree, native of Japan. Flowers very numerous, white, about three inches across; flowers open before the leaves.

Section III. Hybrids

M. Lennei. *Red-flowering Magnolia.* One of the most valuable of the family, on account of its conspicuous reddish purple flowers and its tendency to bloom throughout the season. Leaves

Magnolia Lennei, continued

not unlike those of *M. conspicua* and inflorescence similar to that of its parent, *M. obovata*.

M. Norbertiana. *Norbert's Magnolia.* A fine, strong-growing hybrid, raised from seed of *M. conspicua* crossed with *M. obovata*, and partaking of the character of each. It is somewhat similar to *M. Soulangeana*, but lighter in color.

M. Soulangeana. *Soulange's Magnolia.* A grand variety in the way of the preceding, but the purple marking on the flowers is very decided and beautiful. It is a strong grower, and forms a handsome small tree, blooming profusely late in April.

MALUS. Apple

This genus, represented by our familiar orchard fruit, contains several elegant ornamental varieties well adapted for the lawn. Those from Japan are especially attractive when in full bloom, and have proved hardy with us.

M. angustifolia fl. pl. *Bechtel's Double-flowering Crab Apple.* This elegant new Crab Apple is deserving of unlimited praise, not only on account of the beauty of its rose-like flowers, but for their delicate perfume. It makes a small tree, with oblong dark green leaves. Flowers bright pink.

M. coronaria. *American Crab Apple.* A small native tree worthy of cultivation for the lawn. Flowers numerous, rose-colored, and delightfully fragrant. Fruit greenish yellow, also very fragrant. *Pyrus coronaria* of the older botanics.

M. prunifolia. *Siberian Crab Apple.* A small tree, native of Siberia, beautiful both in flower and fruit. We cultivate about 10 distinct varieties, described in our Fruit Department.

M. spectabilis. *Chinese Crab Apple.* A native of China, growing from 20 to 30 feet in height, with flowers in large sessile umbels, of a rich, deep rose-color during May. The flowers are only semi-double, but exceedingly attractive.

M. Toringo. *Japanese Apple.* Says Professor Sargent. "In early spring this is one of the most beautiful of the trees found in our gardens, where it is perfectly hardy, and it covers itself every year with fragrant pink or red single or semi-double flowers.

M. floribunda. *Free-flowering Crab Apple.* One of the distinct and pretty forms of the above. The flowers change from rose to pure white, and are produced in great abundance. Fruit small, not larger than peas, and very ornamental.

var. Parkmani. *Parkman's Double-flowering Crab Apple.* Another new and uncommonly attractive variety, with beautiful pendent flowers, very double, and bright red in color.

var. Kidwinskeana. Flowers the color of General Jack roses. Single.



MOHRODENDRON (*Halesia*)

Silver Bell

A small genus of three species, native of southeastern North America; hardy here and exceedingly attractive when in bloom. They are small trees, with drooping bell-shaped flowers in short racemes early in the season.

M. Carolinicum (Syn., *Halesia tetraptera*).

Snowdrop Tree. An attractive little tree, with mostly ovate dark green leaves and fascicles of white flowers in March and April. When in bloom this pretty species appears covered with its pendent white bells. Hardy and fine.

MORUS. Mulberry

Deciduous trees of medium size, valued principally for their fruit, although grown for ornament as well. The foliage is used almost exclusively as food for silkworms. The species are generally hardy and of rapid growth, with broad, spreading tops.

M. alba, var. pendula. *Weeping Mulberry*.

This unique form was raised by John C. Teas, of Carthage, Mo. It is decidedly one of the most perfect and natural weeping trees in the entire class of such novelties. Entirely hardy, with long, slender branches, pendulous to the ground. A form of the Russian Mulberry, with similar foliage and fruit. See, also, Fruit Department.



Weeping Mulberry

NYSSA. Tupelo

N. sylvatica (Syn., *N. multiflora*). *Sour Gum*.

A very large native tree, with horizontal branches and shining leaves. Found mostly in low grounds, but succeeds well in high situations and forms really beautiful specimens. Bark very rough; foliage changes in autumn to a brilliant crimson.

PAULOWNIA. Empress Tree

A monotypic genus, native of China but cultivated in Japanese gardens. Leaves very large, those on young trees often of immense size. Flowers in terminal panicles, very conspicuous, fragrant and beautiful.

P. imperialis. *Paulownia*. A very showy and valuable ornamental tree of large size and rapid growth. The flowers are blue, or rather bluish lilac, and in shape not unlike those of the gloxinia. Blooms in early summer and is hardy here.

PERSICA. Flowering Peach

The showiest of all the flowering trees; the large double blossoms are like small roses and are scattered thickly over the tree. A group of the different colors is very effective.

Persica vulgaris, var. alba, fl. pl. Double white flowering peach.

var. rosea fl. pl. Double rose-flowering Peach.

var. sanguinea fl. pl. Double red-flowering.

var. versicolor fl. pl. Double striped-flowering.

var. fol. atropurpurea. Dark purplish red leaves.

PLATANUS. Plane Tree

A small genus, found in the northern temperate zone. The various species are large, of rapid growth, and esteemed for their value as lawn trees or for avenues. They are frequently known as Sycamores.

P. orientalis. *Oriental Plane*, or *Buttonwood*.

An exceedingly valuable tree for avenue planting, owing to its quick growth, immunity from injurious insects and diseases, and clean, healthy foliage. It is also prized for the lawn, where it makes a quick shade and presents a unique appearance.

POPULUS. Poplar

A genus of exceedingly rapid-growing trees, with heart-shaped, toothed leaves, and mostly angular branches.

P. balsamifera. *Balsam Poplar*, or *Balm of Gilead*.

A tall-growing tree, leaves bright green, silvery underneath; buds have a resinous odor.



Populus alba Bolleana. *Silvery Upright Poplar.*

A very distinct form of the well-known Silver Abele, with a strictly erect habit and white foliage.

P. deltoides (Syn., *P. monilifera*). *Carolina Poplar, Cottonwood.* Perhaps the most popular of all rapid-growing trees for avenues and streets. Is a healthy, hardy tree, with ample foliage. Of upright growth; needs an occasional pruning.

var. folius aureus. *Van Geert's Golden Poplar.* Similar to the Carolina Poplar in growth, etc., but with foliage of a golden tint. It forms an attractive contrast to other trees on the lawn,

P. grandidentata penduliformis (Syn., *P. Gracæa pendula*). *Weeping Poplar.* A decidedly pendulous form, with long, slender branches, and bright green, dentate leaves. The growth is strong, the tree hardy and reliable.

P. nigra Italica (Syn., *P. dilatata*). *Lombardy Poplar.* Every one is acquainted with this old relic of a generation of past gardeners. It is the most fastigate of erect-growing trees, and for marked effects in grouping it has no equal.

P. "Volga" (?). *Russian Poplar.* A new and very much eulogized tree, of whose antecedents we have but little information.

PYRUS. The Pear

P. salicifolia argentea pendula. *Weeping Pear.*

The genus is a native of Siberia. The silvery foliage and pendulous habit combine to make it a striking weeping tree.

QUERCUS. Oak

The most valuable genus of trees in the entire list, not only for their estimable lumber, but for their value as forest trees, for parks and lawns of every description. In congenial soils and with proper cultivation, they are not of slow growth, and their spreading heads and healthy foliage entitle them to prominence.

Q. alba. *White Oak.* One of the largest of our native deciduous trees. Although common in our forests, it is certainly unsurpassed for lawns where it can develop its proportions. Leaves smooth, bright green above, glaucous beneath.

Q. coccinea. *Scarlet Oak.* A large tree, native of the United States, with deeply lobed leaves of shining green, changing in autumn to brilliant scarlet.

Q. macrocarpa. *Bur Oak.* A native western tree, striking in character and of medium size. The branches are usually covered with corky bark, and the large leaves are distinctly marked, being very deeply lobed, pale beneath.

Q. marilandica (Q. Nigra). *Black Jack.* A medium-sized tree with large, dark green, glossy leaves; grows in dry rocky soil.

Q. palustris. *Pin Oak.* Perhaps the most popular species for ornamental planting. Generally of medium size, with drooping branches and bright green, shining leaves. For either lawn or avenue planting it is an exceedingly handsome tree.

Q. Phellos. *Willow Oak.* As its name suggests, this beautiful native tree resembles the willow family in the shape of its leaves, which are narrow and without any lobes. It grows rapidly and forms a large or medium-sized tree. Grows in low grounds.

Q. prinus. *Swamp Chestnut Oak.* A fine large native tree, found mostly in moist soil but well adapted to dry, light ground. Leaves resemble the chestnut in character.

Q. Robur. *British Oak.* A large umbrageous species that has proved generally reliable with us. The foliage is not unlike our White Oaks, but smaller. Tree a rapid grower when fully established, and valuable for lawn planting.

var. concordia. *Golden-leaved Oak.* An elegant ornamental tree, with notable rich yellow foliage, rarely, if ever, scorching in



Pin Oak. Specimen on our lawn



Quercus Robur, var. concordia, continued

the full sun. It is a good healthy grower, and very conspicuous in a collection; in fact, the best golden-leaved form in the entire list of deciduous trees.

Q. rubra. *Red Oak.* Another estimable native species of large size, with cut, smooth, shining leaves, turning brilliant red in autumn. It is a moderately rapid grower when established, and is always a marked type among the Oaks.

RHUS. Sumac

A large genus, mostly shrubs, several of which are natives of the United States. From an ornamental point of view, they are valuable for the conspicuous panicles of fruit and brilliant autumnal foliage. Of very easy cultivation, and best adapted for massing.

R. Cotinus. *Mist Tree, Smoke Tree.* A showy small tree producing, during summer, a multitude of light, feathery panicles of pale purplish or pink flowers. Native of the south of Europe, but hardy with us.

R. hirta (Syn., *R. typhina*). *Staghorn Sumac.* Attains the height of a small to medium-sized tree, with pinnate leaves, and shoots covered with a velvety pubescence. The foliage in autumn changes to a bright yellow tint. A native species of value for landscape work.

For other species, see **Deciduous Shrubs**

ROBINIA. Locust

R. Pseudacacia. *Yellow Locust.* A well-known popular timber tree, of large size and erect growth, with rough bark and pendent racemes of white, exceedingly fragrant flowers.

SASSAFRAS. Sassafras

S. Sassafras (Syn., *S. officinale, Laurus Sassafras*). *Sassafras Tree.* Of medium height, with pale green leaves, woolly when young. Tree 30 to 60 feet and occasionally 90 feet high. Young branches bright green. It is very desirable for ornamental planting.

SALIX. Willow

This extensive genus of deciduous trees and shrubs is found throughout the temperate or colder parts of the world. In size, the species vary from the creeping plant of only 2 or 3 inches in height to trees of the largest magnitude. Only a few species are of sufficient importance to include among our ornamental trees.

S. Babylonica. *Common Weeping Willow.* This old Asiatic species is the perfection of a pendulous tree; is perfectly hardy, and a rapid grower. In the near vicinity of bodies of water, the Weeping Willow succeeds admirably, making a large tree.

Salix Babylonica, var. Salamonii. *Salamon's Weeping Willow.* A distinct form of the above, with stronger growth, more glaucous leaves, and apparently larger in all its parts. It is a recent French introduction.

var. "Thurlow's Weeping Willow." A new form of the preceding, valued mainly on account of its extremely hardy constitution, succeeding perfectly where the Babylonian Willow will not thrive.

S. caprea pendula. *Kilmarnock Willow.* A creeping form of the Goat Willow, which, when grafted on upright stems, makes very attractive little trees.

S. pentandra. *Shining-leaved Willow.* A moderate-sized tree, native of Great Britain, with smooth, shining branches and large, glossy foliage.

S. petiolaris (Syn., *S. rosmarinifolia*). *Rosemary-leaved Willow.* A native shrub, with long, narrow, smooth, glaucous leaves. When grafted on straight stems they form elegant little miniature trees, creating a charming effect in gardening.

S. purpurea. *Fountain Willow.* This is frequently grown as the American Willow, but the title is a misnomer, owing to its being a native of Europe. It is naturally a low, spreading shrub, but when grafted standard high makes a beautiful specimen.

SOPHORA. Pagoda Tree

S. Japonica. A medium-sized tree with green bark. Flowers white, borne in loose panicles.

SORBUS. Mountain Ash

This group of showy trees was formerly included in the genus *Pyrus*, but we follow the latest authorities in separating them. It is rather a small genus, native of the northern temperate zone, and valued for the beauty of its fruit. The foliage is handsome, turning orange-red in the fall.

S. Americana. *American Mountain Ash.* A small tree, with smooth bark and bright green, pinnate leaves. The greatest beauty of this species consists in the large clusters of red berries.

S. Aucuparia. *European Mountain Ash.* This differs from the above in having pubescent leaves and clusters of orange-colored fruit. It is a valuable tree for planting near the seacoast, as it resists the salt air well. The large cymes of white flowers are very attractive.

var. pendula. *Weeping Mountain Ash.* A curious and formal variety of the above, with a decidedly pendulous habit.

var. quercifolia. *Oak-leaved Mountain Ash.* It is an erect grower, with deeply lobed leaves, green above and grayish pubescent beneath.



TAXODIUM. Deciduous Cypress

A small genus of American trees belonging to the conifers, although its leaves are deciduous. The light green airy foliage is 2-ranked and linear. Trees are of large growth, very erect and conical in outline, with straight trunks. Found in low, swampy soil.

T. distichum. *Bald Cypress.* A native of our southern states, but entirely hardy and very satisfactory with us. This large and valuable tree has quite an air of distinction on the lawn, grows rapidly, and succeeds perfectly in dry soils, as well as in localities saturated with water.

var. pendulum (Syn., *Glyptostrobus pendulus*, *T. sinensis pendulus*, etc.). *Weeping Glyptostrobus*, or *Cypress*. This unique and beautiful tree is only of medium size, with an outline similar to the Lombardy Poplar, but having its branchlets drooping at maturity. The leaves are all closely appressed to the twigs and twisted, entirely unlike those of the species. It was for a long time considered a distinct genus, but is now known to be only a curious form of our Deciduous Cypress.

var. pendulum novum. *New Weeping Cypress.* Another form of recent introduction, with branches and branchlets of a decided drooping habit. In all other respects identical with the species.



Ulmus Americana

It is only within the last few years that Elms could be grown south of New York, on account of the Elm beetle defoliating the tree, but they seem to have disappeared. We have an avenue of American Elms planted on the road running through our nursery that will compare favorably with the beautiful trees at New Haven.

TILIA. Linden

Handsome large tree of rapid, healthy growth, well suited for either lawn planting or for avenues. The leaves are cordate and toothed, with pretty, very fragrant cream-colored flowers arranged in cymes.

T. Americana. *American Linden*, or *Basswood*. This is one of our finest rapid-growing trees, forming a large open head, with much larger foliage than the following species. It is a valuable tree to the apiarist on account of the honey secreted in its flowers.

T. argentea. *Silver-leaved Linden.* Among our choicest ornamental trees; has no defects. It is a rapid grower, with very large foliage, pale green on the upper side, and downy white beneath.

var. pendula. *Weeping Linden.* Another charming variety, combining a graceful, drooping habit with the beautiful silvery foliage of the preceding form.

T. Europæa. *European Linden*, *Lime Tree*. An elegant ornamental tree, with a more compact form than the preceding. The leaves are also smaller, although of similar shape.

ULMUS. Elm

A valuable genus of trees, some of which attain a very large size. All are specially graceful and appropriate for lawn-planting. They prefer low, moist ground, but succeed in soil moderately dry if of good quality. Of rapid growth and spreading, more or less pendulous habit.

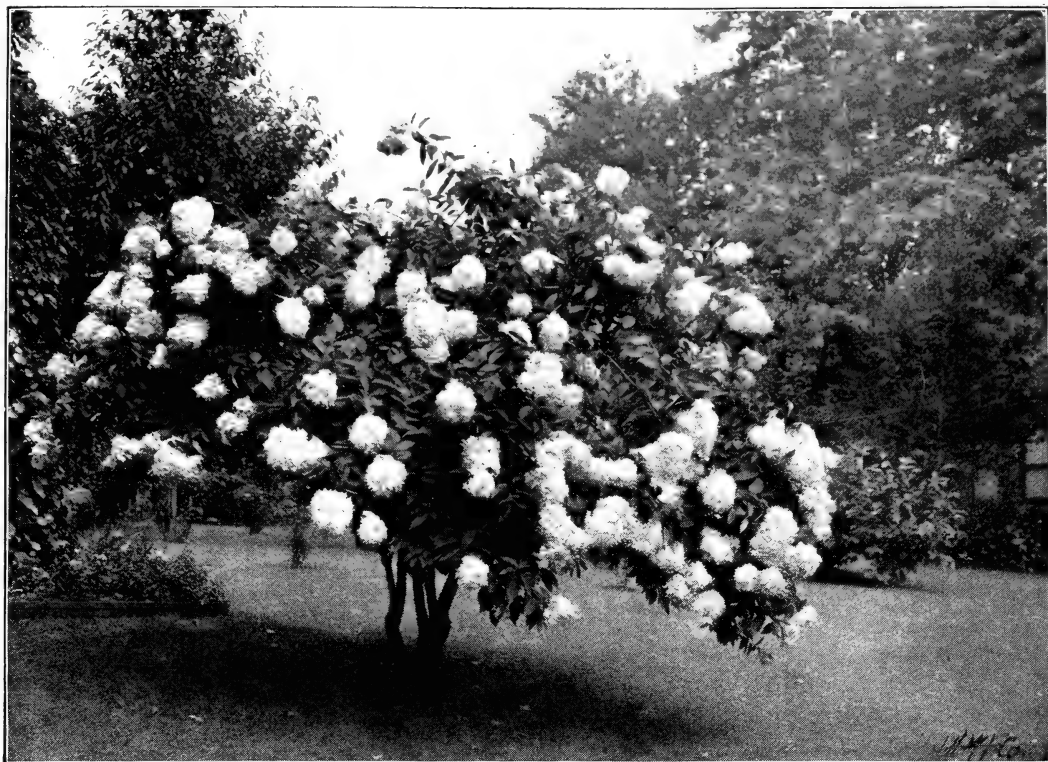
U. Americana. *White*, or *American Elm*. One of the grandest native forest trees. Of large size, with the branches gracefully drooping in a remarkably picturesque manner. Either on the lawn or for avenues, it is difficult to surpass.

var. pendula. *Weeping American Elm.* A striking variety of the above, having its branches even more spreading and pendulous than the species.

U. campestris, var. pendula. *Camperdown Weeping Elm.* When grafted on a tall stem it will spread outward and downward. Its large, dark green foliage makes it a very attractive tree for the lawn.

U. fulva. *Slippery Elm.* A large tree, with spreading branches, forming a broad, flat-topped head.

U. racemosa. *Corky White Elm.* An excellent species, mostly resembling the preceding, but with corky ridges frequently noticed on the branches.



Hydrangea paniculata grandiflora (see page 49)

DECIDUOUS SHRUBS

Owing to the increased demand for this class of plants, we have for several years past paid special attention to their culture, so that we believe our collection is unexcelled in the country. An annual application of old, well-rotted manure or rich compost must be dug into the soil around shrubs to obtain favorable results, and a slight trimming of over-luxuriant branches will prove beneficial.

ACER. Maple

The Japan Maples enumerated here are among the most attractive large shrubs in use.

After carefully testing the long lists of varieties found in foreign catalogues, we are fully convinced that the following constitute the cream of the collection and are all it is advantageous to cultivate.

A. palmatum (*A. polymorphum*). *Japan Maple*.

The ordinarily green form with palmate leaves, which change in autumn to a beautiful crimson. It is highly deserving of cultivation, as it forms a large, compact mass of attractive foliage.

var. atropurpureum. *Blood-Red Japan Maple*:

This is among the most serviceable and attractive shrubs suited to our climate. The rich purple foliage is retained until the latter part of summer, and is always exceedingly distinct from that of other forms. Naturally of dwarf habit, it needs only an occasional clipping of straggling shoots.

var. aureum (*A. Japonicum aureum*). *Golden Variegated Japan Maple*. The lobes in the foliage of this very marked variety are not so deeply cut as in the species, and the outline in-

Acer palmatum, var. aureum, continued

clines to an oval, but the color through most of the season is light yellow

A. polymorphum, var. dissectum atropurpureum. *Purple Cut-leaved Japan Maple*. In

color the same shade of purplish red as *Atropurpureum*, but with the leaves cut into fine fringe-like segments, which present a charming and unique appearance. Not so vigorous as the last

var. sanguineum. *Scarlet Japan Maple*. Differs from *Atropurpureum* in the tint being a bright scarlet shade of red, but does not hold its color as well through the summer. It is less vigorous in growth, with rather more slender branches.

AESCULUS. Horse-Chestnut

A genus consisting mostly of large trees. The following species is a low, spreading shrub, with smooth fruit and rather smaller and smoother leaves than the Horse-Chestnut proper.

Æ. parviflora (Syn., *Æ. macrostachya*). *Dwarf Horse-Chestnut*. Only a few feet high, but spreads over several yards. It blooms in June and July in very long, loose panicles of whitish flowers.



ALNUS. Alder

Small trees or large shrubs specially well suited for massing in low, wet soils. Their abundant foliage and curious, pendent catkins of male flowers in spring, as well as their entire hardiness, entitle them to more notice than they receive.

A. rugosa (Syn., *A. serrulata*). *Smooth Alder*.

This is the common native Alder of the middle states, and is usually found along streams, growing from 6 to 12 feet high, with bright green leaves, smooth on both sides. It shows to advantage when in large masses.

AMELANCHIER. Juneberry

A genus of small trees or shrubs bearing racemes of white flowers in April and May, followed in June by small, sweet, purplish fruits.

A. botryapium. *Common Dwarf Juneberry*.

Leaves whitish, woolly when young, giving the bush a rather attractive appearance. The fruit is often used for cooking, is juicy and of good flavor.

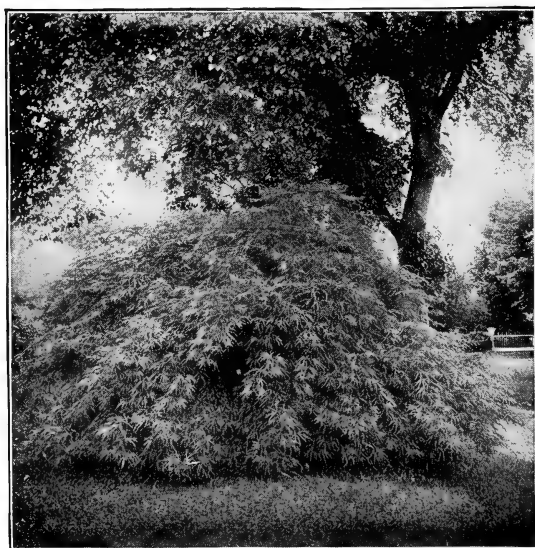
A. rotundifolia. *Round-leaved Dwarf Juneberry*.

It has broad, roundish foliage and rather smaller petals than the species. A very pretty little shrub of easy cultivation, growing 4 to 6 ft. high.

AMORPHA. False Indigo

A group of hardy, rapid-growing shrubs, not especially handsome, but valuable for massing in uncultivated locations.

A. fruticosa. *Common False Indigo*. A tall native shrub of very easy cultivation, blooming freely in June. The violet flowers are crowded in terminal spikes. Of rapid growth. 6 to 8 ft. high.



Acer polymorphum (see page 41)

ARALIA (Ginseng Family)

Quite a large order, embracing several herbaceous plants. The large, shrubby species are of the easiest cultivation and are frequently employed for producing subtropical effects, on account of their compound leaves. The greenish or white flowers are produced in large umbels. Trees attain a height of 30 to 40 feet.

A. Chinensis (Syn., *A. Japonica*). *Chinese Hercules' Club*. Assumes the proportions of a small tree, with prickly stems and graceful, compound leaves.

A. spinosa. *Hercules' Club, Angelica Tree*. A native shrub with stout, prickly stems and large bipinnately compound leaves. 30 to 40 feet high.

AZALEA. False Honeysuckle

A genus of the most charming deciduous shrubs in cultivation. They require a loose, friable soil, abounding in vegetable matter. Old rotted sods and peat, or leaf-mold from the woods, are excellent for the purpose. For massing in partially shaded locations nothing can be more attractive.

A. amœna. *Dwarf Azalea*. An exceedingly pretty little bush, rarely growing more than 2 feet high, with an abundance of small, bright red flowers. Leaves evergreen.

A. arborescens. *Smooth Azalea*. A tall native shrub, often attaining 10 feet in height. Flowers rose-colored and highly fragrant. Found in mountains of Virginia, North Carolina, etc.

A. gandavensis (Syn., *A. Pontica*). *Ghent Hybrid Azalea*. At present we list them as above. Although preferring a shaded situation, they will succeed in almost any position not too hot, provided the soil is properly prepared and furnished with a liberal mulch. The flowers range in color from pale yellow to brilliant red, and are especially showy in May. These superb shrubs are richly deserving of a little extra care, forming, as they do, one of the most attractive features in any garden. They will attain a height of 4 to 6 feet.

A. lutea (Syn., *A. calendulacea*). *Flame Azalea*. Found wild in the mountains of Pennsylvania, Virginia, Kentucky and southward. It is perhaps the most elegant of all our native species when covered with brilliant orange-red flowers, which open simultaneously with the leaves. Generally forms a large shrub, attaining even a height of 10 feet.

A. nudiflora. *Wild Honeysuckle*. Our wild Azalea, found common throughout the eastern states. Takes kindly to cultivation in proper soil and partially shaded locations. During April it produces an abundance of flesh-colored or pink flowers and grows 4 or 5 feet high.



A bed of Japanese Azalea (Mollis)

Azalea Sinense (Syn., *A. mollis*). *Japanese Azalea*.

A remarkably showy race, blooming quite early in the season. Flowers large, brilliant yellow, rose color and red. It is of easy cultivation and very attractive when grown in beds, growing 2 to 3 feet high.

A. Vaseyi (Syn., *Rhododendron Vaseyi*). *Vasey's Azalea*. From the mountains of North Carolina. Entirely hardy at the North, and exceedingly attractive. The flowers, which appear before the foliage, are a pretty shade of pink with mottled throats. It is quite a rapid grower and free bloomer. Grows 4 to 5 feet high.

A. viscosa. *Swamp Honeysuckle*. This neat species is found throughout the North, usually in low, swampy places, but succeeds on high ground under proper conditions. The flowers are pure white, very fragrant and clammy. It generally grows from 4 to 6 feet high and blooms freely in June and July.

BERBERIS. Barberry

A genus composed of prickly shrubs, with yellow flowers in drooping racemes in early spring, followed by red fruit. This is a very effective group, not only for planting on the lawn, but for forming neat little hedges on the boundaries. They are all reasonably hardy, not particular in regard to soil, and of quick growth.

B. vulgaris. *Common Barberry*. The wild Barberry of Europe, which has become naturalized in New England. Our ordinary *B. Canadensis* is probably only a form of it. Foliage bright green, with bristly-toothed margins. Fruit bright scarlet and showy. Grows 5 to 6 feet high.

var. purpurea. *Purple-leaved Barberry*. A well-known, serviceable shrub, differing from the above in its deep purple leaves. It is doubtless the best dark-leaved shrub in the entire list and is easily grown in any good soil. During May, when in bloom, the contrast is especially noticeable.

Berberis Thunbergii. *Thunberg's Barberry*. It is a native of China, but was introduced from Japan. It forms a compact bush of 3 to 4 feet high, with neat little leaves that change to rich scarlet in autumn. The abundance of bright red fruit is exceedingly attractive. It bears the shears well and makes a dense hedge.

BUDDLEIA

A free-flowering shrub. Not entirely hardy in the North; should be planted in sheltered situations.

B. Lindleyana. Leaves dark green; flowers violet-purple. Native of China, the hardiest of the family.

B. variabilis. *Sweet-scented Buddleia*. Flowers lilac, with an orange-yellow spot in the throat. Native of China.

BUTNERIA (Syn., Calycanthus)

Strong-growing shrubs, about 5 to 6 ft. high, with ample foliage, natives of the mountains of Virginia and southward. Curious purplish flowers terminate the branches, and exhale an odor of ripe fruit.

B. fertilis (Syn., *Calycanthus glaucus*). *Glaucous-leaved Calycanthus*. This species grows much larger than any other in the genus, and produces larger flowers.

CALLICARPA. French Mulberry

A genus of medium-sized shrubs, valuable for their attractive violet-colored berries, which are produced in great abundance in the axils of the leaves. The flowers are inconspicuous, appearing in early summer.

C. Americana. *French Mulberry*. Leaves dark green, downy; fruit violet-purple, borne in great profusion. Very showy.

C. purpurea. *Purple-fruited Callicarpa*. It forms a neat round bush about 4 feet in height, and during autumn the branches are literally covered with a wealth of purplish lilac berries or drupes.



Berberis Thunbergii (see page 43)

CARAGANA. Siberian Pea

Mostly tall-growing shrubs. The flowers are pea-shaped, yellowish and produced abundantly in May. In good soil this shrub grows very rapidly, and is well adapted for the background of masses.

C. arborescens. *Tree-like Caragana.* A fine species attaining the size of a small tree. When covered with its elegant pea-shaped blossoms it makes a choice specimen.

CARYOPTERIS

One of the newer introductions from China, which, with us, is more like a herbaceous plant than a woody shrub. The root, however, is entirely hardy, and, as the bloom always appears on the young shoots, there is an abundance of flowers every season.

C. Mastacanthus. *Blue Spiraea.* An elegant little plant, with verberna-like bloom, blooming freely until late in autumn. The flowers are pale blue or lavender, and exceedingly attractive. The plant attains a height of 3 to 4 feet.

CEANOTHUS. Red Root

A genus embracing quite a number of species, all of which, however, are unsatisfactory, except our own common native shrub, as below. The flowers are arranged in oblong terminal fascicles, freely produced and quite attractive. Partial to dry banks.

C. Americanus. *New Jersey Tea.* Generally grows about 3 or 4 feet high, bushy and spreading, with an abundance of pure white flower-clusters in June and July.

CEPHALANTHUS. Button-Bush

Hardy shrubs bearing flowers in dense, globular heads in July, and found in a wild state on the margins of streams and swamps. They will, however, succeed perfectly on high ground.

C. occidentalis. *Western Cephalanthus.* This is sometimes known as "Pond Dogwood." It bears very attractive white flowers in spherical heads. Attains a height of from 3 to 5 feet.

CERCIS. Judas Tree

Large shrubs or small trees, very ornamental and of easy cultivation. Leaves rounded, heart-shaped. Noted for their reddish purple flowers in small, umbel-like clusters in advance of the foliage. Growth quite rapid in good soil.

C. Canadensis. *Red Bud.* See Deciduous Trees.

C. Chinensis. *Japan Judas Tree.* Usually known as *C. Japonica*. One of the most useful introductions into American collections. It grows 6 to 7 feet high, compact and rounded in outline, and is a perfect mass of color when in bloom. The purplish red flowers which cover the branches before or just as the leaves begin to appear make it very attractive.

CITRUS. Japan Orange

A member of the Citrus family, which embraces the orange, lemon, lime, shaddock, etc.

C. trifoliata. *Hardy Orange.* This curious Orange is very thorny and has roundish leaflets in threes. It produces a small, yellowish, worthless, but rather ornamental fruit. Hardy as far north as Philadelphia.



CLETHRA. White Alder

Among the most easily cultivated shrubs belonging to the Ericaceae. Although found growing in low, wet ground, the Clethras succeed apparently as well in high situations. Greatly admired for their cheerful racemes of fragrant white flowers.

C. acuminata. *Tall Clethra.* From the mountains of Virginia, North Carolina, etc., where it forms a large shrub or small tree, with large acuminate leaves pale beneath. The drooping racemes of white flowers are quite attractive.

C. alnifolia. *Sweet Pepper Bush.* A small or medium-sized shrub, mostly growing from 3 to 5 feet high, and producing, in late summer, numerous upright racemes of very fragrant white flowers. The flowers are full of honey and very attractive to bees.

COLUTEA. Bladder Senna

A genus composed of a few shrubs bearing pea-shaped yellow flowers in June in axillary racemes; perhaps all are but varieties of one species, described below. Natives of the middle and south of Europe.

C. arborescens. *Arborescent Colutea* A very rapid-growing, large shrub. The bloom is succeeded by large, bladder-like pods or legumes, assuming a reddish tint at maturity.

COMPTONIA. Sweet Fern

A genus of native shrubs. Composed of one species, closely allied to the Sweet Gale family. The leaves are lobed, deep green, and delightfully fragrant.

C. peregrina (Syn., *C. asplenifolia*). *Sweet Fern.* A small bush not over 1 or 2 feet in height, admirably adapted for planting dry banks, etc. It is quite fern-like in appearance and aromatic.

CORNUS. Dogwood

With the exception of *C. florida*, the family of Dogwoods are not showy when in bloom, but they are especially useful for the rich coloring of the bark in some species, and the bright autumnal tints in the foliage of almost all. They are rapid-growing, bushy shrubs, attaining a height of 6 to 8 feet. Of great value to the landscape architect.

C. alba. *Red-branched Dogwood* A shrub 6 to 8 feet, with erect stems and bright blood-red branches. Makes a striking effect in winter. Very useful in mixed borders of shrubs.

C. alternifolia. *Blue Dogwood.* A native plant, which forms a large shrub or small tree. The peculiar arrangement of the branches gives the shrub a tabular or flattened aspect. The bark is greenish, striped with white; the fruit is deep blue.

Cornus amomum (Syn., *C. sericea*). *Silky Dogwood.*

A native shrub, found usually in low, damp soil, but succeeding well on high ground also. Bark purplish; leaves have a silky pubescence on the under side. Fruit pale blue; growth less rapid than in most other species.

C. candidissima (Syn., *C. paniculata*). *Panicked Dogwood.* A medium-sized rapid-growing shrub with numerous panicles of pure white flowers. The branches are smooth and gray, with ovate-lanceolate foliage, whitish beneath. Fruit abundant and pure white.

C. circinata. *Round-leaved Dogwood.* A large shrub, with greenish branches and roundish oval leaves, woolly underneath. The fruit is light blue.

C. Mas. *Cornelian Cherry.* This introduced species forms a large shrub or low tree. It is remarkable for the beauty of its yellow flowers and large, brilliant scarlet fruit.

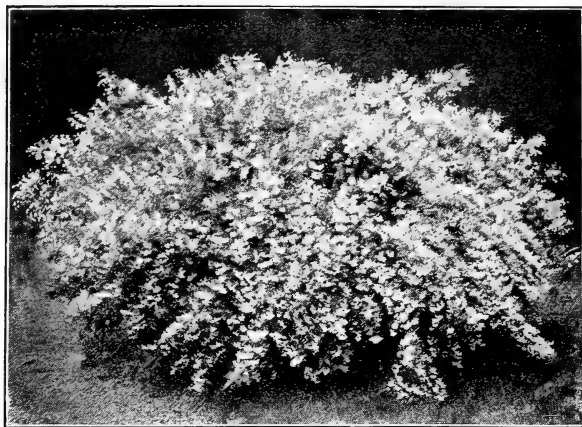
C. sanguinea. *English Dogwood.* The true *C. sanguinea* is very unlike *C. stolonifera*, having dark purplish red bark and dark purple fruit. It is not nearly so effective for ornamental purposes as the latter. It is occasionally sold under the name of *C. Sibirica*.

var. foliis variegatis. *Variegated Dogwood.* A form of the preceding, having the foliage distinctly marked with pure white. It stands the direct rays of the sun with reasonable success, but in partial shade the effect is enhanced. Hardy.

C. Spæthi. *Golden-leaved Dogwood.* This is evidently a chance variety of one of the foregoing species, probably *C. alba*, and is a decided acquisition to ornamental grounds. The foliage is richly marked with yellow variegations, and does not burn badly in the full sun.



Dogwood Berries



Deutzia gracilis

Cornus stolonifera. *Red-twigg'd Dogwood.* This is often confused with *C. alba*, which has erect branches, while *C. stolonifera* is of a spreading habit and the branches are of a dark purplish red color. Fruit white or lead-colored.

var. aurea. *Golden-twigg'd Dogwood.* A form of the preceding, just introduced into cultivation. The bark is bright golden yellow.

CORYLUS. Hazel

A genus of strong-growing, rather coarse shrubs, but well suited for planting belts and masses in large plantations. The fruit is also valuable, and the shrubs are worthy of culture for this alone. They are all hardy and not particular in regard to soil.

C. Americana. *Common Hazel.* The nuts produced by this species are smaller than those of the European, but are sweet and of fine flavor.

C. Avellana, var. laciniata. *Cut-leaved Hazel.* A form of the European Hazel or Filbert, with the foliage deeply incised or lacinated.

var. purpurea. *Purple-leaved Hazel, or Filbert.* The foliage of this attractive form is rich purple on first opening out, and for several weeks thereafter, but changes to a dark purplish green in autumn.

CYDONIA. Quince

This well-known genus, valuable for its fruit, contains but one really ornamental shrub. They are all quite hardy and exceedingly attractive when in bloom, being useful not only for the lawn but for hedging purposes as well.

C. Japonica (Syn., *Pyrus Japonica*). *Japan Quince.* This is certainly one of the most brilliant-flowering shrubs. We grow large blocks of seedlings every year, and, as they sport into every conceivable tint, a group of them is very attractive.

DAPHNE. Daphne

A genus of low-growing shrubs, noted for the exquisite fragrance of their flowers. They prefer well-drained, light soil, not too rich in stimulating manures.

D. Cneorum. *Dwarf Daphne.* This dainty little species has persistent leaves. It rarely exceeds 12 inches in height, but is spreading in character. The pretty clusters of pink flowers are very fragrant, and continue in bloom for some time during early summer. Excellent for edging azalea beds as they require the same kind of soil to thrive properly.

D. Mezereum. Flowers lilac-purple, very fragrant, appearing before the leaves, almost hiding the naked branches.

DEUTZIA. Deutzia

A genus of Japanese shrubs, from 4 to 6 feet high, flowering in June. They are rapid in growth, easily cultivated and exceedingly attractive in bloom. The large-growing kinds are available for screens and ornamental hedges.

D. crenata. *Crenate-leaved Deutzia.* One of the best of hardy shrubs, bearing a great profusion of single white flowers on long, slender branches. Preferred by some to the several double-flowering kinds.

var. fl. pl. *Double-flowering Pink Deutzia.* So named on account of the distinct pink or reddish stripes on the petals of the flowers. The bloom is perfectly double, resembling little rosettes and is certainly one of the most distinct of the group.

var. candidissima. *Double White-flowering Deutzia.* This extremely beautiful double form has snow-white flowers and blooms in the greatest profusion. It makes up well in flower decorations, and is a valuable specimen.

var. "Pride of Rochester." It is rather earlier in flowering than the others; double, white, with a tint of rose on back of petals.

D. gracilis. *Slender-branched Deutzia.* One of the most valuable shrubs in the entire list. Excellent for forcing under glass. It forms a small round plant, 2 feet in height, blooming freely early in June. Pure white.

D. Lemoinei. *Lemoine's Deutzia.* A newly introduced variety obtained by M. Lemoine, of France, by crossing *D. gracilis* on *D. parviflora*. Although the habit is dwarf—about 3 feet—the flowers are large, pure white and produced freely.

D. parviflora. *Small-flowered Deutzia.* Introduced from northern China, where it is a beautiful large shrub, with stout branches and large corymbs of pure white flowers.



DIERVILLA. Weigela

A group of very beautiful shrubs, growing 4 to 6 feet tall. They were introduced from Japan and are entirely hardy with us. We adhere to the correct classification of Diervilla, although the genus is popularly known as Weigela. They bloom in May and June.

D. floribunda, "Eva Rathke" (Syn., *Weigela*, *Eva Rathke*). A new and exceedingly showy variety, with bright red flowers borne freely during early summer. It is very distinct and decidedly the best of its color. Rather slender in growth.

D. florida (Syn., *Weigela rosea*). Rose-colored *Weigela*. Its handsome rose-colored flowers are produced with remarkable freedom. Hardy and of compact growth.

var. candida (Syn., *Weigela candida*). White-flowering *Weigela*. This is a distinct and valuable plant, much superior to most of the white Weigelas.

var. nana variegata. Variegated *Weigela*. The leaves are variegated with white and the flowers are lighter in color than *D. florida*'s, but it is equally as free in bloom. The growth, however, is not so robust as the latter, and requires less trimming to preserve its compact form.

The following varieties have been selected as the best of the recent introductions.

Dame Blanche. Flowers very large, ivory-white, center clear yellow.

Coquette. Large, deep pink flowers.

Gustave Mallet. Flowers pink, with white margin.

Mont Blanc. Flowers very large, pure white.

DIMORPHANTHUS

A genus of shrubs and herbaceous plants from China and Japan. Closely related to *Aralia*.

D. Manshuricus. A tall-growing shrub, with prickly stems and very large, multifold, handsome leaves. It is a rapid grower and speedily produces a grand effect when planted in groups. Quite hardy with us, and showy when in bloom.

DIRCA. Leatherwood

A small genus, composed of a single species and very distinct in character. It forms a round, compact bush from 2 to 5 feet high, with exceedingly tough bark. The

DIRCA, continued

bright yellow flowers are produced in small clusters before the leaves.

D. palustris. *Moosewood*. It is a northern native shrub. The flowers are small and yellow, and produced in clusters; they are followed by small reddish poisonous fruit. The Indians used the bark for thongs.

ELAEAGNUS. Oleaster

A family of large shrubs, growing 6 to 8 feet high; noted for the silvery appearance of the leaves and the showy, berry-like fruit.

E. longipes. *Edible-fruited Oleaster*. One of the most ornamental of the genus, bearing a profusion of large, bright red fruits that are edible and pleasant to the taste. Flowers yellowish white.

EUONYMUS. Spindle Tree

A genus composed of very dissimilar plants, a portion of which are evergreens and others deciduous. Again, while some species assume the size of small trees, others are merely dwarf shrubs or trailing vines. The deciduous species are all quite hardy and valuable for their fruit, as well as for their bright autumnal foliage. They are of easy culture and readily adapt themselves to most soils. Valuable for grouping on the outer edge of woodlands.

E. alatus. *Cork-barked Euonymus*. One of the most charming shrubs. Attractive during autumn when full of its bright-colored fruit, and when



Diervilla florida



Euonymus alatus, continued

the foliage is brilliant crimson-scarlet, the effect is unsurpassed. Bark corky.

E. Americanus. *Strawberry Bush.* A small native shrub, either upright or trailing, with bright green leaves and rough, warty crimson pods that, bursting, reveal their bright scarlet seed-coverings.

E. atropurpureus. *Burning Bush.* This is a tall shrub, with smooth, deeply lobed scarlet pods drooping on long stems. It is one of the most valuable native shrubs for ornament.

E. Europæus. *European Burning Bush.* This forms a small tree at maturity, and is one of the old-fashioned species still in demand. Its specially attractive feature is the rich crop of crimson fruits in autumn, from which the well-known common name is derived.



Forsythia suspensa

EXOCHORDA

This comparatively new genus is closely related to the spiræa. The only good species is the one described below, which is perfectly hardy, a vigorous grower and an abundant bloomer.

E. grandiflora. *Pearl Flower.* A remarkably conspicuous and beautiful shrub when covered with its multitude of snow-white flowers, which are larger than those of any of its near congeners, the spiræas. At maturity it forms a large shrub 8 to 10 feet high, clothed with handsome, smooth green leaves. A native of China. Blooms in May.

FORSYTHIA. Golden Bell

A valuable genus of shrubs growing 5 to 6 feet high; from China and Japan; bloom very early in spring. Flowers yellow, drooping, borne in great profusion.

F. Fortunei. *Fortune's Forsythia.* A strong-growing species, with stout, erect branches and rich green foliage, blooming in April and continuing for some time.

F. intermedia. *Intermediate Forsythia.* Erect in growth, somewhat slender, very profuse in bloom.

F. suspensa. *Weeping Forsythia.* The long, slender shoots curve elegantly to the ground, and when covered by a wealth of bright yellow flowers, present a pleasing feature in any collection.

F. viridissima. *Golden Bell.* It comes from the north of China and blooms early in May. Flowers rather paler in color than the others, but very profuse and attractive.

HAMAMELIS. Witch-Hazel

A small genus of shrubs, the single species being found all over the Atlantic states. The yellow flowers appear in little clusters late in autumn, during the fall of the leaf, and the fruit matures during the following summer.

H. Virginiana. *Common Witch-Hazel.* This fine native shrub has oval, toothed leaves turning yellow or orange in autumn. It is a valuable aid to the gardener in forming large masses of bright foliage.

HIBISCUS. Althæa

Large shrubs, growing from 8 to 10 feet high. Very popular for hedges and screens. The many-colored flowers, blooming in September and October, make the Althæa one of the most desirable shrubs.

H. Syriacus. *Rose of Sharon.* The following varieties are distinct and can be highly recommended.

Amaranthus. Rich purple; fine.

Albus oculatus. A large flower; white with a distinct lake-red eye.



HIBISCUS, continued

- Bicolor.** Double; white, with red stripes.
Carnea plena. White, tipped with pink.
Comte des Flandres. Bright maroon.
Duchesse de Brabant. Deep crimson.
Elegantissima. Bright pink, prettily striped.
"Fleur Blanche." Pure white, single flower.
Incarnatus. Pure flesh-color, quite double.
Jeanne d'Arc. Pure white; very full, and superior to any double white known.
Pæoniflora. Large, double, pink; beautiful
Ranunculæflora. White, with maroon center.
Sanguinea. Dark crimson.
Variegatus, fl. pl. Double; purple, leaves variegated.
"Violet Claire." Clear violet.
Seedlings. Mixed colors. Fine for screens.

HYDRANGEA

Hardy and half-hardy shrubs, natives of the United States, China and Japan. The splendid corymbs of flowers are very attractive and beautiful.

H. arborescens. *Wild Hydrangea.* A native species found from Pennsylvania to Florida. A vigorous-growing shrub, with mostly fertile white flowers in flat cymes.

var. sterilis. *Hills of Snow.* A new variety of great promise, the large showy white flowers, like the snowball, cover the plant with great profusion, and last nearly all summer.

H. Hortensia. *Garden Hydrangea.* A well-known old species from China. Flower-heads large, showy, with a pretty pink tint, which changes to blue when iron filings or swamp-muck are mixed with the soil.

var. cyanoclada (Syn., *var. ramulis pictus*). *Red-branched Hydrangea.* This is a valuable and very showy form with dark chocolate-colored stems and large corymbs of bright red flowers.

var. Otaksa. A meritorious variety from Japan with very large corymbs of beautiful pink flowers.

var. Thomas Hogg. Another Japanese introduction with snow-white corymbs of flowers, resembling the common snowball, although very much larger.

var. rosea. A fine variety with rosy red flowers.

H. paniculata. *Panicked Hydrangea.* A valuable Japanese shrub, with long panicles of white flowers, blooming earlier than its showy variety and in less compact trusses.

var. paniculata grandiflora. *Great-panicked Hydrangea.* This is surely one of the best introductions of later years. Growth strong and erect, with immense panicles of snow-white bloom, if the soil is rich. See page 41.

H. quercifolia. *Oak-leaved Hydrangea.* A distinct shrub with spreading branches. Flowers in large white panicles. June. Grows 5 to 6 feet high.

Hydrangea radiata (Syn., *H. nivea*, of Michx.) *Snowy-leaved Hydrangea.* A native of the southern states, but hardy with us. The ovate leaves are snow-white beneath and very handsome. The flat cymes are not very noticeable, but have rather large sterile white flowers around the margins.

HYPERICUM. St. John's-Wort

Shrubs and herbs, with mostly yellow flowers. The form is compact and rounded, with somewhat persistent leaves.

H. Moserianum. A novelty of decided merit on account of its large, glistening golden yellow flowers, produced freely from midsummer until hard frost. It is quite dwarf in habit. Height 3 to 4 ft.

H. prolificum. *Shrubby St. John's-Wort.* This excellent shrub blooms profusely from the middle of summer until autumn, and its bright yellow flowers are especially attractive at this season. It is sub-evergreen in character. 2 to 3 feet high.

ILEX. Holly

The deciduous species are among our choicest shrubs with ornamental fruit. They are partial to low, moist situations, although this feature is not strictly essential. Grows 6 to 10 feet high.

I. monticola. *Large-leaved Holly.* A mountain species, rare in cultivation, with smooth, sharply serrate leaves, changing to crimson in autumn. The reddish or purplish fruit is very showy.

I. verticillata. *Black Alder.* It flowers during May and June in clusters of small white bloom which are succeeded by brilliant scarlet fruits in autumn.

ITEA. Itea

A small genus, found near the Atlantic coast from New Jersey to Florida.

I. Virginica. *Virginian Itea.* Admirably suited for planting in low, moist soil, where it produces a multitude of pure white flowers in June. It resembles a willow in habit and foliage. 3 to 4 feet.

KERRIA. Corchorus

A genus of Japanese shrubs which, according to some botanical authors, is classed with Corchorus. They are mostly hardy here, although occasionally injured by the winter. The bright yellow flowers are exceedingly attractive. Bark pale green.

K. Japonica. *Globe Flower.* Leaves bright green, turning to yellow in the autumn. The bright yellow flowers make a good contrast when planted with other shrubs.

var. fl. pl. *Double-flowering Corchorus.* It blooms profusely from the last of June until autumn, with double globular flowers.

var. variegata. *Variegated-leaved Corchorus.* This is not so vigorous in growth as the preceding. It has decided white markings on the leaves.



LESPEDEZA. Bush-Clover

A large genus of perennial plants, found abundantly in our woodlands. The following cultivated species is bush-like in appearance, with leaves in threes.

- L. Sieboldi** (Syn., *Desmodium penduliflorum*). *Japan Bush-Clover*. Forms a mass of twiggy branches 3 or 4 feet in height. During late summer and early autumn it is very beautiful, with numerous drooping clusters of bright pink flowers. Although strictly an herbaceous plant, the general appearance strongly suggests a woody shrub.

LIGUSTRUM. Privet

In addition to their recognized value for hedging purposes, the Privets are all useful for planting on the lawn. The bloom is in terminal racemes of white flowers; the leaves in the various species are exceedingly dissimilar and sub-evergreen. The berries, also, are quite ornamental. Height 8 to 10 ft.

- L. Amurense**. *Amoor River Privet*. Native of China. Leaves dark green. Popular for hedges in the South, where it is nearly evergreen.

- L. Iboti**. *Chinese Privet*. A noticeable species, both in growth and foliage. It is very vigorous, has distinct, deep green leaves and numerous racemes of pure white, fragrant flowers. Excellent for hedging purposes and forms a beautiful specimen plant.

var. Regelianum. *Regel's Privet*. A form of Iboti with spreading branches; smaller and more compact.

- L. ovalifolium**. *California Privet*. The most popular, as it is the most available hedge plant with deciduous leaves. Growth strong, with beautiful glossy foliage and showy racemes of pure white bloom. Native of Japan.

LONICERA. Bush Honeysuckle

A genus composed of twining vines and erect bushy shrubs. The most valuable of the latter class are described below; the former under the heading of vines and creepers. They are in demand not merely on account of their pretty flowers, but also for the attractive fruit so plentifully produced in autumn; grow 5 to 6 feet high.

- L. fragrantissima**. *Early Fragrant Honeysuckle*. Introduced from China. Valued for the extreme earliness of its bloom as well as the very decided fragrance of its whitish flowers.

- L. Ledebouri**. *Ledebour's Honeysuckle*. From California. Very distinct, with red flowers in May.

- L. Morrowi**. *Morrow's Upright Honeysuckle*. A species from Japan. It is a strong, upright grower, blooming profusely in May and June; flowers pure white. During autumn its bright red berries are especially attractive.

Lonicera Tatarica. *Tartarian Honeysuckle*. This fine species has long been in cultivation and is highly esteemed for its fragrant pink flowers and beautiful orange-colored berries. It flowers in May.

var alba. *White Tartarian Honeysuckle*. Differs only in the color of the flowers, which, in this variety, are pure white.

var. grandiflora. *Large-flowering Tartarian Honeysuckle*. It is a strong grower and prolific bloomer, with large pink flowers prettily striped with white. The berries are also as conspicuous and showy as the others.

MYRICA. Wax-Myrtle

A group of shrubs chiefly valued on account of the pleasing fragrance of the numerous resinous glands dotted over the surface of the foliage. They are of very easy culture in almost any soil, especially in light or sandy. Evergreen at the South, but deciduous with us.

- M. cerifera**. *Bayberry*. A native shrub, with an agreeable aromatic odor, common along the coast in sandy soil. Although generally of rather dwarf size, in good soil it frequently attains a height of 6 or 8 feet. Valuable for massing where many of our shrubs will not succeed.

- M. Gale**. *Sweet Gale*. Another native species found along the margins of streams in the mountains. It is a northern shrub, growing from 3 to 5 feet high.

OPULASTER. Wild Opulus

A small genus of shrubs separated from the Spiræa family. Their distinguishing features are palmately lobed foliage and white flowers in terminal corymbs. Growing 8 to 10 feet high.

- O. opulifolius**. *Ninebark*. A tall, coarse-growing, much-branched shrub, with bark peeling off in strips. The conspicuous reddish heads of fruit remain on the plant for a long time. Flowers in round corymbs and very conspicuous. Growth rapid. This is the *Spiræa opulifolia* of older botanies.

var. aurea. *Golden Spiræa*. A distinct form of the above, with the foliage of a decided yellowish tint, which holds its color well all through the season. Used for hedging, as well as for groups.

OXYDENDRUM. Sourwood

A genus consisting of a single species separated from Andromeda. It forms a small tree with acuminate leaves, quite sour to the taste.

- O. arboreum** (Syn., *Andromeda arborea*). *Sorrel Tree*. This pretty, graceful species is covered during April and May with long, drooping racemes of white flowers.



PAEONIA. Peony

There are two distinct classes belonging to this beautiful genus, one of which is strictly herbaceous, with tuberous roots; the other forms medium-sized shrubs with woody stems and branches. For description of the former, we refer to the heading of Hardy Perennials.

P. moutan. *Tree Peony.* The gorgeous large flowers of named varieties are exceedingly attractive when properly grown, as they require a deep rich soil, with an abundance of well-rotted manure.

PHILADELPHUS. Mock Orange

A group of shrubs frequently listed under the misnomer of *Syringa*, which is the generic title of the Lilacs, thus causing confusion between the two very distinct families. They are all hardy and easily grown, with white, mostly fragrant flowers in great profusion. Growing 5 to 6 feet high.

Boule d'Argent. Flowers double pure white.

P. coronarius. *Garland Mock-Orange.* This old-time favorite, with its wealth of creamy white flowers and rich orange-blossom fragrance, should be included in the smallest collections.

var. nanus aureus. *Golden Mock-Orange*, or *Syringa* (incorrectly). A beautiful variety, with the foliage all golden yellow, which stands the direct rays of the sun without scorching. It is a dwarf in habit and blooms quite freely.

var. nivalis fl. pl. *Double Snow-White Mock-Orange.* This is another double-flowering form, with pure white bloom and decidedly odorous.

var. grandiflorus. *Large-flowered Mock-Orange.* A well-marked form of the preceding, with larger, very conspicuous white flowers.

P. Lemoinei. *Hybrid Mock-Orange.* Flowers white and very fragrant, literally covering the plant in early June. Grows 4 to 6 feet high.

P. purpurea maculatus. A small compact bush; flowers white with a purplish rose spot in center.

PIERIS. The Stagger-Bush, Fetter-Bush

P. Marianum. *Andromeda Marianum.* Leaves dark green, mostly evergreen. The nodding white flowers are among the first to appear in the spring. Grows 2 to 4 feet high.

POTENTILLA. Cinquefoil

A very large genus of shrubs and herbs, all natives of the northern temperate zone. 2 to 3 feet.

P. fruticosa. *Shrubby Cinquefoil.* A native shrubby species, of erect habit, very compact, and with long, silky, pubescent leaves. The flowers are pretty, of a bright yellow color; blooms all summer.

PRUNUS. Plum

Trees or shrubs with quite showy flowers, white or pinkish in color and clustered.

P. Japonica (*Amygdalus pumila*). *Double Dwarf Rose Almond.* A popular little shrub, with a great profusion of charming double rose-colored flowers early in May. Grows 3 to 4 feet high. We also grow the Double Dwarf White Almond.

P. Pissardii. *Purple-leaved Plum.* One of the most valuable small trees or large shrubs with purple foliage. The leaves as well as the young shoots are a rich tint of reddish purple, which they retain most of the season. 8 to 10 feet high.



Flowers of *Philadelphus coronarius*

P. triloba. *Double-flowering Plum.* A comparatively recent introduction from China, with pretty semi-double, pink flowers so closely set along the branches as to resemble a beautiful spike. 6 to 8 feet high. Blooms in May.

PTELEA. Hop Tree

A genus of small trees or large shrubs, recommended on account of their wafer-like seeds.

P. trifoliata. *Hop Tree, Wafer Ash.* A large, round-headed shrub with greenish white flowers in April.

var. aurea. *Golden Hop Tree.* A variety of the above, with golden yellow leaves, the color continuing all summer.



RHODOTYPOS

A small genus of shrubs introduced from Japan. In general appearance the flowers resemble those of the *Kerria* or *Corchorus*, but the habit of the plant is quite distinct.

R. kerrioides. *White Kerria.* The flowers are pure white and make their appearance late in summer. Growth upright. 5 to 6 feet high.

RHUS. Sumach

The arborescent species will be found under the heading of Deciduous Trees. The autumnal colors are really gorgeous tints of crimson and scarlet. The gay leaves glisten as if varnished, making their colors seem all the brighter.

R. Copallina. *Mountain Sumach.* A good species, with dark green, glabrous leaves. The branches and stalks are downy, and the leaf-stems are margined with wings.

R. glabra. *Common Sumach.* The foliage in autumn is a brilliant crimson, and the ovoid terminal panicles of fruit are bright purple.

R. glabra, var. laciniata. *Cut-leaved Sumach.* Leaves deeply and numerous divided into fine, shred-like segments, so as to resemble the fronds of some delicate fern. The foliage changes in autumn to bright crimson.

RIBES. Currant

A group of deciduous shrubs highly valued for their fruit.

R. aureum. *Missouri Currant.* Has been long in cultivation and is greatly esteemed for the delightful, spicy fragrance of its rich, golden yellow flowers. Fruit is black and edible.

ROBINIA. Locust

This small genus of native trees and shrubs is mentioned in the list of Deciduous Trees. The following species is too dwarf for that division of our Catalogue.

R. hispida. *Rose Acacia.* A small shrub, 2 to 3 feet high, from the mountains of Virginia, North Carolina, etc., but is entirely hardy here. It is prized for its numerous racemes of pinkish or purple flowers, and is highly attractive when planted in large masses. The long, graceful flower-racemes are quite fragrant.

RUBUS. Bramble

Perennial herbs and shrubby plants, some of which, as the Blackberry and Raspberry, are among our most valuable small fruits.

R. odoratus. *Purple-flowering Raspberry.* A native shrub, with large, lobed, pubescent leaves and numerous terminal flowers of a purplish tint. June. Height 3 to 5 feet.

SAMBUCUS. Elder

A genus of large shrubs of the easiest cultivation, attractive both in flower and fruit.

S. Canadensis. *American Elder.* The great cymes of snow-white flowers in June are exceedingly showy, and the autumn display of deep purplish fruit is very attractive.

S. nigra aurea. *Golden Elder.* This is a very attractive form of the Common European Elder, with bright yellow leaves.

S. pubens. *Red-berried Elder.* A native shrub, with long cymes of pure white flowers in May, followed by large clusters of bright scarlet fruit. 5 to 7 feet high.

SPIRAEA. Meadow Sweet

A large genus of hardy shrubs and perennial plants, the greater portion being well adapted for ornamental gardening.

S. albiflora (*S. Japonica alba*). *Dwarf White Spiraea.* Quite dwarf and dense in habit, with a profusion of white corymbs of flowers.

S. arguta. It resembles somewhat *S. Thunbergi*, but is of even more slender habit. In early spring it is a perfect mass of snow-white bloom on long, pendent branchlets.

S. arizefolia. A very pretty species from the Pacific coast. Of medium size and compact habit, with slender branches and a profusion of white flowers in early summer.

S. Billardi. *Billard's Spiraea.* A medium-sized shrub, producing spiked panicles of bright rose-colored flowers in July.

S. Bumalda. A dwarf *Spiraea*, that begins to flower in June and continues until frost. Its rosy pink flowers are arranged in flat corymbs.

var. "Anthony Waterer." It is a sport from the preceding, and has beautiful rich crimson flowers. The bloom is continuous throughout the season.

S. Cantoniensis (*S. Reevesii*, or *Reevesiana*). A shrub 4 feet in height; enormous blooms of pure white flowers; the branches bend over with the weight of the inflorescence.

var. fl. pl. *Double-flowering Reeve's Spiraea.* Same as above, but with double flower.

S. Douglasi. Flowers deep pink, in dense panicles. July and August.

S. Japonica (Syn., *S. callosa*). *Fortune's Spiraea.* A medium-sized shrub from Nepal and Japan. with flat umbels of bright pink flowers in June and July; profuse bloomer. Almost universally listed as *S. callosa*.

var. rosea superba. Flowers are a charming shade of bright rose-color and produced abundantly by midsummer. It is also more dwarf in habit than its parent.



Spiræa Lindleyana. Flowers white, blooming in mid-summer.

S. prunifolia. *Plum-leaved Spiræa.* A tall, erect-growing shrub, with lanceolate leaves, and a great profusion of small, very double white flowers before the foliage in early spring. The bloom extends the entire length of the branches, hence the common title of "Bridal Wreath." 5 to 6 feet.

S. salicifolia. *Willow-leaved Spiræa.* A free-growing native species of medium size, with crowded panicles of white flowers in July.

S. Thunbergi. *Thunberg's Spiræa.* A medium-sized bush, with numerous slender branches, narrow linear leaves, and a great profusion of small snow-white flowers in early spring.

S. tomentosa. *Hardhack.* Flowers in short racemes, crowded, bright rose-color, appearing in July. Grows 3 to 4 feet high.

var. alba. *White-flowering Hardhack.* This is a variety of the above, differing only in the color of its bloom, which in this is pure white, very conspicuous, and decidedly showy.

S. trilobata. This elegant shrub is entitled to almost unlimited praise. Of medium height, entirely hardy, a vigorous grower, with an abundance of lovely pure white flowers in May. 4 feet.

var. Van Houttei. *Van Houtte's Spiræa.* This is perhaps the most popular Spiræa at the present time. It closely resembles the above, but is perhaps more branching and drooping in character. Flowers pure white, profuse, and exceeding beautiful. Grows 6 feet high.

STAPHYLEA. Bladder-Nut

A small genus of shrubs, with trifoliate leaves. They bloom in drooping racemes or panicles of white flowers, followed by greenish capsules.

S. Bumalda. *Japanese Bladder-Nut.* Flowers pure white, pendent, followed by two-celled capsules. June. Grows about 6 feet high.

S. pinnata. *European Bladder-Nut.* Large, with pinnate, glabrous leaves and drooping racemes of white flowers in June. Grows 10 to 12 feet high.

S. trifolia. *American Bladder-Nut.* A native species, with smooth, striped bark. Flowers in long, pendent racemes, bell-shaped, pure white, in May. Growing 6 to 8 feet high.

STEPHANANDRA

A small genus, which has proved entirely reliable and satisfactory. The deeply lobed leaves impart a fern-like appearance to the shrubs.

S. flexuosa. A medium-sized shrub of very compact growth, with numerous slender branches densely clothed with leaves tinged with red when opening, changing to red and yellow in the fall. Flowers in clusters, small, greenish white. Grows 3 to 4 feet in height.

STYRAX

Beautiful trees and shrubs, with elegant, small, drooping, bell-shaped flowers, arranged in leafy racemes.

S. Japonica. *Japan Styrax.* A superb rare shrub or small tree from the mountain of Japan. It is very satisfactory with us, producing, in June, a multitude of charming little bell-shaped flowers that are white and deliciously fragrant. Growing 8 to 9 feet in height.

SYMPHORICARPUS. Snowberry

Native shrubs, growing 3 to 5 feet high. Compact in form, with numerous slender twiggy branches. Leaves oval, downy beneath, with clusters of whitish flowers, followed by numerous clusters of white or red berries. The latter are very ornamental.

S. racemosus. *Snowberry.* Valuable for its clusters of immaculate white berries in autumn, which remain on the plant for a long time.

S. Symphoricarpus (*S. vulgaris*). *Indian Currant, Coral Berry.* A small native shrub, with dense clusters of pinkish flowers, succeeded by numerous purplish red, roundish berries

SYRINGA. Lilac

A well-known genus of hardy shrubs, growing 8 to 10 feet high; highly valued for the beauty and fragrance of their flowers, which are in terminal panicles and very freely produced.

S. Amurensis pendula. *Weeping Lilac.* When grafted high, the long, slender branches are exceedingly picturesque and beautiful. Flowers in large white panicles.

S. Chinensis (Syn., *S. Rothomagensis*). *Rouen Lilac.* Its immense panicles are of a rich tint of purple or dark lilac and very fragrant.

var. Metensis. Trusses of a pale reddish lilac.

var. Saugeana. *Red Rouen Lilac.* Bloom reddish lilac in tint.

S. Japonica. *Japan Lilac.* Found on the mountains of Japan, where it attains a height of 25 or 30 feet, with a stem 12 inches in diameter. Leaves large, deep glossy green; large clusters of elegant fragrant flowers appear late in the season.

S. Persica. *Persian Lilac.* A large shrub, with slender branches and large panicles of purplish lilac flowers. Quite fragrant. Blooms in June.

var. alba. *White Persian Lilac.* A variety of the above with white flowers.

S. villosa. *Himalayan Lilac.* Foliage large, not unlike that of the White Fringe. Flowers later than the others, rosy pink, and in large panicles.

S. vulgaris. *Common Lilac.* Flowers bluish purple and in fairly large panicles.



Syringa vulgaris, var. alba. *Common White Lilac.*

The old-fashioned white-flowering variety.

var. Charles X. Large panicles, reddish purple.

var. Geant des Batailles. Bright blue, single flowers.

var. hyacinthæflora. Large trusses of double, lilac-rose colored flowers, with a reddish tint in bud. Early.

var. Jean Bart. Double claret-rose, dark red in the bud.

var. Langils. Delicate shade of lilac, tinted with fawn color. Late.

var. La Tour d'Auvergne. Double, pale rosy lilac.

var. Leon Simon. Double, bright bluish color.



Syringa, Charles X

var. Marie Legraye. One of the best single white varieties; large trusses.

var. Mme. Casimir Perier. Double white.

var. Monsieur Lepage. Large lilac-blue flowers.

var. Obelisque. Panicles large, double, white.

var. President Grevy. Large, double, blue.

var. pyramidalis. Large, semi-double flowers.

var. Rubra de Marly. Purplish flowers. Used for forcing by the Parisian florists.

var. Senateur Volland. A bright rosy red; double.

var. Souvenir de L. Spath. Large, purplish red.

var. Ville de Troyes. Reddish lilac in color.

var. Virginalis. Fine trusses, pure white.

var. Virginité. Double, clear flesh color.

TAMARIX

Tall shrubs, natives of Europe, Asia and Africa. Excellent for planting near the seacoast.

T. Gallica. *French Tamarix.* Present an attractive appearance, because of its heath-like foliage and pretty pink flowers in May.

T. juniperiana (*T. plumosa* and *T. Japonica*). Native of Japan. Bright green feathery foliage, with pink flowers in August.

T. tetrandra. It is a strictly erect grower, with charming light feathery foliage and with rosy pink flowers during summer.

VIBURNUM. Haw, Sloe, Etc.

Large shrubs found almost all over the world. Flowers mostly in compound cymes, the outer row of inflorescence in some species being sterile. In addition to the various Snowballs, our native species are well worthy of extensive use, the clean, healthy foliage alone recommending them to notice. They grow from 5 to 8 feet in height. They flower in May and early June.

V. acerifolium. *Maple-leaved Arrow-Wood.* A medium-sized native shrub, with flat heads of white flowers in May and clusters of black berries in the fall.

V. cassinoides. *Withe-Rod.* A native shrub of medium size, with large cymes of small white flowers. Berries pink, changing to blue at maturity.

V. dentatum. *Arrow-Wood.* A tall native shrub, with creamy white flowers in early June. Fruit dark blue, almost black.

V. Lantana. *Wayfaring Tree.* Native of Europe. Forms a tall shrub, 10 to 15 feet high. Its large cymes of white flowers are succeeded by black berries.

V. Lentago. *Sheepberry, Nannyberry.* A native species, usually a large shrub. Cymes of flowers large, pure white and showy, followed by clusters of round bluish black, sweet, edible fruit.

V. macrocephalum. *Large-headed Viburnum.* This grand shrub has immense round heads of flowers, snow-white and exceedingly attractive. It is unusually difficult to propagate, and consequently is still very rare.

V. molle. *Soft-leaved Arrow-Wood.* A native shrub of large size, with densely pubescent ovate leaves, and cymes of pure white flowers succeeded by clusters of blue fruit.

V. Opulus. *Cranberry Tree.* A large native shrub. The outer flowers in the cymes are large, conspicuous and pure white. The fruit is ornamental, bright red, translucent and acid.

var. sterile. *Snowball.* A form of the preceding, with large, globular heads of pure white sterile flowers, hence the term of Common Snowball.



Viburnum prunifolium. *Black Haw, Sloe.* A large native shrub. Cymes of flowers very attractive, snow-white, appearing in May. The compressed bluish black drupes are sweet and edible.

V. tomentosum. *Hairy Japan Viburnum.* It forms a large shrub, with beautiful cymes of flowers, the outer inflorescence being sterile and very showy. A very valuable plant.

var. plicatum. *Japan Snowball.* A popular and exceedingly attractive variety of the above, producing numerous globular beads of snow-white sterile flowers. The foliage is dark green. One of the finest shrubs in the catalogue.

XANTHOCERAS

A small genus from the north of China, growing about 8 to 10 feet high.

X. sorbifolia. Foliage resembling the Mountain Ash. Flowers white, changing from yellow to red.

VITEX. Chaste Tree

From southern Europe and western Asia, and are particularly valuable for their late flowering.

V. Agnus-castus. *Monk's Pepper Tree.* A large shrub with a strong aromatic odor. Flowers pale lilac or purple in terminal paniced racemes.

var. alba. A variety with white flowers.

Selected List of Trees and Shrubs with Variegated and Colored Foliage

DESCRIBED IN THEIR RESPECTIVE PLACES IN THE CATALOGUE

<i>Acer platanoides</i> , var. <i>Schwedleri</i> .	<i>Cornus stolonifera</i> , var. <i>marginata</i> .	<i>Philadelphus coronarius</i> , var. <i>nanus aureus</i> .
<i>Acer polymorphum</i> , and its var.	<i>Corylus avellana</i> , var. <i>purpurea</i> .	
<i>Amygdalus Persica</i> , var. <i>folia atropurpurea</i> .	<i>Diervilla florida</i> , var. <i>nana variegata</i> .	<i>Populus deltoides</i> , var. <i>foliis aureis</i> .
<i>Berberis vulgaris</i> , var. <i>purpurea</i> .	<i>Fagus sylvatica</i> , var. <i>purpurea</i> .	<i>Prunus pissardi</i> .
<i>Cornus sanguinea</i> , var. <i>foliis variegatis</i> .	<i>Hibiscus Syriacus</i> , var. <i>variegatus fl. pl.</i>	<i>Ptelea trifoliata</i> , var. <i>aurea</i> .
<i>Cornus Spæthii</i> .	<i>Kerria Japonica</i> , var. <i>variegata</i> .	<i>Quercus Robur</i> , var. <i>Concordia</i> .
		<i>Sambucus nigra aurea</i> .

Shrubs Suitable for Planting in Shady Situations

Barberry, European and others.	<i>Clethra alnifolia</i> .	Privet, in variety.
Box, in variety.	<i>Deutzia gracilis</i> .	<i>Rhododendron</i> .
<i>Cornus paniculata</i> .	<i>Deutzia scabra</i> .	Rubus, in variety.
<i>Cornus sanguinea</i> .	<i>Mahonia aquifolium</i> .	<i>Symphoricarpus racemosus</i> .
<i>Cornus stolonifera</i> .	Myrtle.	<i>Symphoricarpus vulgaris</i> .

Flowering Shrubs in the Order in Which They Bloom

APRIL

Daphne Cneorum.
Spiræa Thunbergii.

Wistaria.

Deutzia gracilis.
Deutzia Lemoinei.
Lilacs in variety.

Pæonies, Herbaceous.
Clematis Jackmani.
Sambucus Canadensis.
Deutzias in variety.
Rhododendrons.

MAY

Forsythia in variety.
Cydonia Japonica.
Prunus pissardi.
Prunus triloba.
Prunus Japonica.
Spiræa prunifolia.
Spiræa arguta.
Spiræa Van Houttei.
Spiræa trilobata.
Viburnum Lantana.
Honeysuckle *Tatarica*.

JUNE

Halesia tetraptera.
Styrax Japonica.
Spiræa Cantonensis.
Spiræa Cantonensis fl. pl.
Viburnum sterile.
Viburnum plicatum.
Philadelphus, in variety.
Diervilla in variety.
Lilac Japonica.
Lilac Villosa.

JULY

Spiræa Billardi.
Spiræa Bumalda.
Spiræa A. Waterer.
Kerria Japonica.
Rhodotypos kerrioides.

AUGUST

Hibiscus (Althæa).
Hydrangea paniculata grandiflora.
Clematis paniculata.

Shrubs Which Produce Ornamental Fruit Succeeding the Flowers

<i>Berberis</i> . Bright scarlet fruit.	<i>Lonicera Tatarica</i> , in variety. Red and yellow fruit.	<i>Sambucus</i> . Purple fruit.
<i>Callicarpa</i> . Purple fruit.		<i>Symphoricarpus vulgaris</i> . Red fruit.
<i>Cornus</i> in variety. Blue, white, scarlet and red fruit.	<i>Mahonia</i> . Bluish berries.	<i>Viburnum lantana</i> . Dark purple fruit.
<i>Elæagnus longipes</i> . Red fruit.	<i>Rubus</i> in variety. Red fruit.	<i>Viburnum Opulus</i> . Red fruit.
<i>Euonymus</i> in variety. Scarlet and red fruit.	<i>Symphoricarpus racemosus</i> . White fruit.	



A Planting of Rhododendrons (see page 57)

EVERGREEN SHRUBS

A few of this class of shrubs are only partially hardy at the North, and require a somewhat sheltered position from the severe northwest winds in winter. They form beautiful clumps on the lawn, and are also prized as single specimens. For hedges, some of them are particularly valuable and can be trimmed to any desired shape. The fruit of some of the species is quite a feature of their winter beauty.

AUCUBA. Gold Dust Tree

From Japan, where it forms a large shrub, with branches verticillate, and laurel-like foliage. Will succeed in the open air if planted in the shade.

A. Japonica. *Japan Aucuba.* The beauty of this evergreen consists in its handsome leaves, plentifully sprinkled with yellow dots. It produces its red berries quite freely in Japan, but does not fruit with us.

BERBERIS. Mahonia

The evergreen species are fairly hardy in the middle states, although the foliage is frequently injured.

B. aquifolium (Syn., *Mahonia aquifolium*). A small, spreading shrub, with smooth, spiny, holly-like leaves and racemes of rich golden yellow flowers, succeeded by roundish purple berries in autumn.

Berberis Japonica. *Mahonia Japonica.* Leaves large, bright, glossy green; flowers in long rich yellow racemes; berries bluish black, covered with bloom. Native of China and Japan.

BUXUS. Box

A small genus of evergreens, the several varieties ranging from a low bush to a small-sized tree. They are natives of Europe or Asia and readily cultivated, although some are occasionally injured by severe winters.

B. Japonica. *Chinese, or Japanese Box.* The several varieties are very handsome and attractive on the lawn. The following are among the most useful.

var. angustifolia. *Narrow-leaved Chinese Box.*

var. latifolia. *Broad-leaved Chinese Box.*

var. longifolia. *Long-leaved Chinese Box.*

var. rotundifolia. *Round-leaved Chinese Box.*



Buxus sempervirens. *Common Tree Box.* A very large shrub or small tree, with thick, leathery, dark shining green leaves. Both the species and its numerous varieties are of the greatest importance in gardening.

B. sempervirens, var. argentea. *Silver-leaved Box.* A very distinct form, with the foliage profusely marked with whitish spots and irregular lines.

var. aurea. *Golden-leaved Box.* Similar to the Common Tree Box except the yellow stripes and blotches on the foliage.

var. myrtifolia. *Myrtle-leaved Box.* This very distinct variety is quite compact in growth and forms a dense, pyramidal shrub. The multiplicity of small, obovate leaves is very attractive.

var. suffruticosa. *Dwarf Box.* This well-known and highly appreciated old-fashioned shrub is of the greatest importance for edging walks, etc., in symmetrical gardening, as no other species is so well adapted for that purpose.

var. thymifolia. *Thyme-leaved Box.* A very compact, dwarf-growing variety, with remarkably small, lanceolate leaves.

PYRACANTHA. Evergreen Thorn

The following species is an evergreen shrub, which is greatly appreciated wherever known.

P. coccinea. *Fiery Thorn.* A low, straggling shrub, growing to advantage among rocks and over stone walls. It has smooth, small evergreen leaves and round, bright scarlet fruit.

EUONYMUS. Spindle Tree

In addition to the species of this genus described under the heading of Deciduous Shrubs, there are a few important plants belonging to this evergreen division. With a slight protection they will succeed in the open air in the middle states.

Euonymus Japonicus. *Japan Euonymus.* This is usually a large shrub, specially adapted to the vicinity of the seacoast, and in sheltered spots inland. It has large, thick, leathery, shining foliage.

var. argenteus. *Silvery Variegated Euonymus.* This distinct form is plentifully sprinkled with pure white markings.

var. "Duc d'Anjou." This pretty new French variety is curiously marked and shaded with a lighter tint of green.

var. marginatus. *Silver-margined Euonymus.* This sport has a distinct stripe around the margins of the leaves; at first it is of a yellowish tint, but gradually changes to a pure white.

var. radicans. *Trailing Euonymus.* The vine-like character of growth and the evergreen foliage adapt it for many useful purposes.

Euonymus Japonicus, var. Carrieri. A low shrub, with ascending and spreading branches and shiny leaves.

var. variegatus. *Variegated Trailing Euonymus.* A valuable variation from the above, with white markings on the foliage.

KALMIA. American Laurel

A small genus of North American evergreen shrubs with leathery leaves and attractive flowers. They require moist, shaded localities, and well-drained soil.

K. latifolia. *Mountain Laurel, Calico-Bush.* One of the most valuable shrubs for massing in woods and shady spots. It forms a medium-sized or large evergreen, with smooth, oval, bright green leaves. The pink and white flowers are borne in corymbs.

RHODODENDRON. Rose Bay

This superb genus, which comprises a great diversity of named varieties, is, without doubt, the most beautiful and attractive group in the entire list of ornamental shrubs. Flowers in large heads of white, rose, red and purple, with all the intermediate tints. Plant in partially shaded location and mulch with long manure or leaves. After blooming, all seed-pods must be removed to insure fine flowers the next year.

R. Catawbiense. *Carolina Rose Bay.* This parent of most of the hardy hybrid varieties is found on mountain ranges from Virginia southward. Flowers violet-purple, in large heads.



Flowers of *Kalmia latifolia*



RHODODENDRONS, CATAWBA HYBRID VARIETIES

The following will all prove satisfactory and hardy in the northern states, and are superior to the many doubtful forms that are injured by the severity of our winters. These are first-class plants, with balls of peaty earth attached to the roots, and mostly supplied with flower-buds for immediate effect.

Album grandiflorum. Blush, changing to white. Large truss.

Atrosanguineum. Intense blood-red.

Caractacus. Rich purplish crimson; splendid truss. Desirable.

Catawbiense album. Pure white. Quite hardy and satisfactory.

Charles Dickens. Dark scarlet. Habit and foliage fine. Reliable.

Delicatissimum. White, faintly edged with blush. Beautiful.

Everestianum. Rosy lilac, spotted with red, prettily fringed.

General Grant. Bright red.

H. W. Sargent. Bright crimson; enormous trusses.

Lady Armstrong. Pale rose, very much spotted. Beautiful.

Lady Clermont. Brilliant red.

Lee's Purple. Rich dark purple in fine clusters.

Parsons' grandiflorum. Red.

Purpureum grandiflorum. Fine purple; large flower and truss.

Roseum elegans. An elegant bright rose-color.

Roseum superbum. Rose.

Also other beautiful varieties

R. maximum. *Great Laurel, Rose Bay.* A large shrub or small tree, with deep green leaves and large trusses of elegant rose-colored to whitish flowers, with yellowish spotted throats. Found along the mountain ranges of the northern Atlantic states, where it forms immense masses in some localities, and always proves attractive.

YUCCA. Spanish Bayonet

A genus of mostly tender evergreen plants, with numerous rigid, spine-pointed leaves, and tall, showy panicles of white, cup-shaped flowers. The following species is entirely hardy at the north, and useful in ornamental gardening.

Y. filamentosa. *Adam's Needle.* Stem short and leafy, with green or glaucous, long-linear leaves, having numerous thread-like filaments along the margins. The tall flower-stem lifts a panicle of creamy white flowers. It is very hardy and fine.

VINES

The following vines may be divided into four classes, according to their several methods of climbing. (1) Those clinging by means of disk-tipped tendrils, as the Virginia Creeper. (2) Those with aerial roots which fasten to walls, etc., as the English Ivy. (3) Those attaching themselves to surrounding objects by means of a twining stem, as the Celastrus. (4) Vines with leaf-stem or petioles that clasp their support, as the Clematis.

Climbing plants are decidedly useful in our gardening operations; some species for showy flowers, others for beauty of foliage. They are of easy cultivation, but require attention in the matter of training.

ACTINIDIA. Silver Vine

Natives of the Himalayas and eastern Asia, where they flourish with remarkable vigor.

A. arguta (*A. polygama*). This is probably the most desirable species. The fruit is 1½ inches long, canary-yellow, and translucent. The white, sweet-scented flowers, much resembling the hawthorn, are followed by bunches of edible berries.

AKEBIA

A small genus of Asiatic vines, only one of which is of sufficient importance for ornamental use. The curious, fragrant flowers are composed of three thick fleshy sepals. They make a handsome show when in full bloom.

A. quinata. It is very graceful in habit, with attractive foliage and dull, reddish purple fragrant flowers, which are produced in late spring or early summer. Fruit very showy.

AMPELOPSIS. Deciduous Creepers

An important family of vines, climbing by tendrils. The foliage is glossy green in summer, turning to the most brilliant tints of crimson and scarlet during the autumnal season. Panicles of dark blue or purplish berries; quite attractive.

A. heterophylla. *Asiatic Creeper.* Small, heart-shaped leaves. The numerous berries are porcelain-blue; conspicuous and very attractive.

A. quinquefolia. *Virginia Creeper.* A very vigorous vine, climbing to the top of the tallest tree. Leaves dark green above, pale beneath, changing to deep red in autumn.

A. Veitchi. *Japan Ivy, Boston Ivy,* etc. One of the most deservedly popular vines for covering walls, masses of rocks, etc., that we possess. The 3-lobed leaves are glossy, and, during autumn, in their radiant dress of crimson, are remarkably attractive.



ARISTOLOCHIA. Pipe Vine

A robust twining vine, with large, coarse leaves and unique purplish flowers.

A. macrophylla (Syn., *A. Siphon*). *Dutchman's Pipe*. A native of the southern United States. A vigorous twining vine, with large, round, kidney-shaped leaves and very curious brownish purple flowers, shaped similar to a Dutch pipe.

BERCHEMIA. The Supple Jack

B. racemosa. Leaves dark green; flowers nearly white, in terminal leafy panicles, opening in summer; berries in dense clusters, changing from red to nearly black. Well adapted for covering rocks or low walls.

CELASTRUS. Staff Tree

Mostly climbing shrubs, of which but one is a native of North America. They are mainly valuable for their attractive fruits, in the form of bright capsules, which, in splitting open, disclose the scarlet seed-coverings. Strong growers, with bright foliage.

C. articulatus. *Japan Celastrus*. A native of Japan, where the leafless branches covered with bright fruit are sold in the towns for house decoration.

C. scandens. *Climbing Bittersweet*. A native, twining, woody vine, of vigorous growth. It has bright orange capsules that open in autumn and reveal the scarlet-coated seeds. Bright with fruit until late in winter.

CLEMATIS. Virgin's Bower

This is one of the most useful genera of flowers for ornamenting trellises, verandas, etc., while the light, feathery foliage of the small-flowered species and their great profusion of beautiful bloom entitles them to precedence.

Sec. I. Small-Flowering Clematis

C. crispa. *Marsh Clematis*. A beautiful native species, with nodding, solitary, bell-shaped flowers.

C. flammula. *Fragrant Virgin's Bower*. It is vigorous, with an abundance of small white fragrant flowers.

C. montana. *Mountain Clematis*. A vigorous climber. Native of the Himalayas. Flowers white, resembling the Anemone; sweet scented.

C. orientalis (*C. graveolens*). A rapid-growing vine; native of the Himalayas; flowers yellow.

C. paniculata. *Japan Clematis*. Very valuable on account of the wonderful masses of pure white delightfully fragrant flowers. The vine is very vigorous; the best small-flowered Clematis.

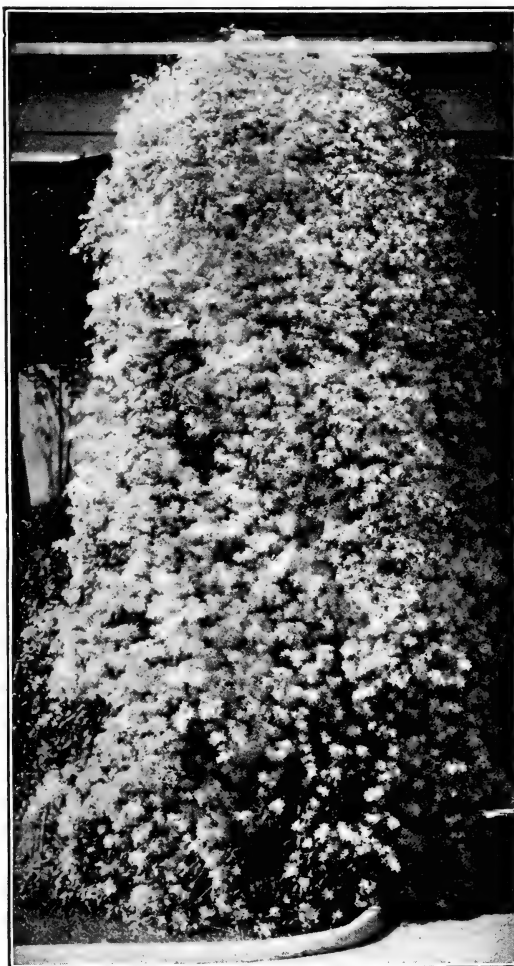
C. Viorna. *Red-flowering Clematis*. A pretty vine, with elegant little bell-shaped flowers of bright scarlet, with distinct yellow tips.

SMALL-FLOWERING CLEMATIS, continued

C. Virginiana. *Native Virgin's Bower*. A vigorous vine that blooms in August. The large, leafy panicles of pure white flowers are fragrant and quite showy.

C. vitalba. *Traveler's Joy*. Native of Europe. It is a very woody vine, attaining a height of 25 or 30 feet, and has large panicles of greenish white, almond-scented flowers.

C. viticella. *Virgin's-Bower Clematis*. A native of the south of Europe. Only a moderate grower, with numerous blue or violet-colored flowers on long, nodding stems, produced all summer.



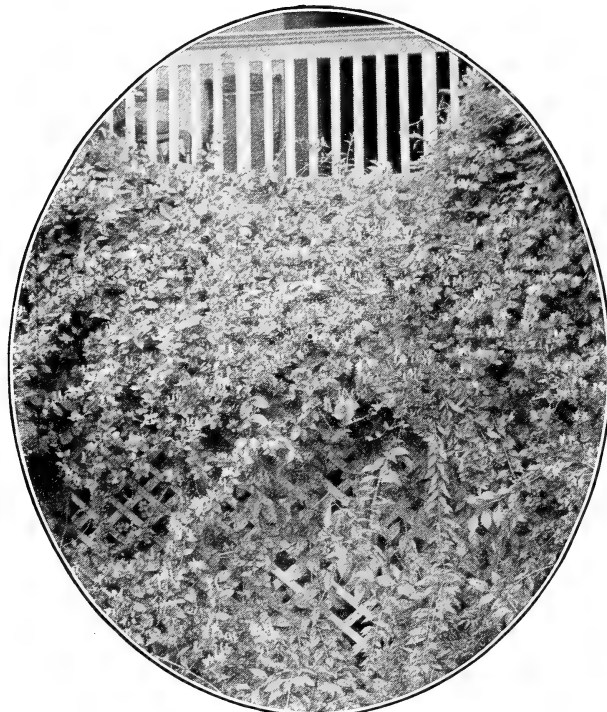
Clematis paniculata

Sec. II. Large-Flowering Clematis

Henryi. A grand Clematis. Its large creamy white flowers have 6 to 8 sepals. Popular.

Jackmani. The most reliable of all the large-flowering varieties. Flowers large, of an intense violet-purple color.

Mme. Edouard Andre. Violet-red.



Lonicera Heckrottii

HEDERA. Ivy

The Ivies are mostly hardy in sheltered spots and grow freely. The evergreen leaves form the chief attraction of this old, well-known genus.

H. Helix. *English Ivy.* A strong, vigorous-growing evergreen vine, with large, deep glossy green leaves.

JASMINUM. Jessamine

A large genus, mostly confined to the warmer regions of the Old World. They are either shrubs or climbing vines, with white or yellow flowers, generally quite fragrant.

J. nudiflorum. *Naked-flowering Jessamine.* A reasonably hardy species, blooming very early in spring, in advance of the foliage. Its wealth of rich golden yellow flowers makes it very showy. Although not a true climbing vine, it is excellent for training over trellises, etc.

J. officinale. *Common White Jessamine.* Only partially hardy at the North, except in warm, sheltered situations. It is a vigorous grower, with long, slender green shoots and a profusion of pure white, deliciously fragrant flowers.

LONICERA. Honeysuckle

They are either shrubs or climbing vines. The former are described under the heading of Deciduous Shrubs; the latter only will be enumerated here.

Lonicera Fuchsioides. *Red-flowering Honeysuckle.* A strong grower, bearing bright red flowers.

L. Japonica. A strong-growing climber, 15 feet tall; leaves half-evergreen; flowers white, changing to yellow, often purplish outside, very fragrant.

var. Chinensis. *Chinese Evergreen Honeysuckle.* Unsurpassed for trailing over rocks and covering waste places. Flowers white and yellow-buff, in great profusion.

var. Halliana. *Hall's Evergreen Honeysuckle.* A very popular, strong-growing and free-blooming variety, fine for almost any purpose. It has beautiful white flowers, produced very freely and very fragrant. Subevergreen.

var. aurea reticulata. *Golden-veined Honeysuckle.* The leaves are elegantly veined and marked profusely with pure yellow. It flowers very freely. Subevergreen.

L. Heckrottii. *Everblooming Honeysuckle.* Leaves smooth, glaucous beneath, with a profusion of flowers all summer and autumn, ending only with severe frost; color pinkish lilac.

L. periclymenum Belgica. *Monthly Dutch Honeysuckle.* A favorite old form of the woodbine, flowering occasionally all summer. Red and yellow, and exceedingly fragrant.

L. sempervirens. *Red Coral Honeysuckle.* "Red Trumpet." Flowers in verticils, scarlet, trumpet-shaped. Evergreen at the South.

var flava. *Yellow Coral Honeysuckle.* "Yellow Trumpet." Similar to the preceding, but has yellowish shoots and bright yellow flowers.

LYCIUM. Box-Thorn

Shrubs or woody vines, frequently spiny, with greenish white or purplish flowers and ornamental berries.

L. vulgare. *Matrimony Vine.* Stems slender, trailing or erect, mostly spiny, with glabrous leaves and purplish flowers, changing to greenish white. Berries attractive in autumn, round, orange-red.

PASSIFLORA. Passion-Flower

A very extensive genus of climbing vines, mostly natives of tropical countries. The following is the only hardy species.

P. incarnata. *Passion-Flower.* This herbaceous perennial has large 3-lobed leaves, and climbs to a height of 20 to 30 feet in a season. Flowers white, with a pink or purplish center and exceedingly ornamental. Root quite hardy.

PERIPLOCA. Silk Vine

A group of plants belonging to the Asclepiadaceæ, or milkweeds, all inhabiting warm countries, although the following species is hardy here.



Periploca Græca. *Grecian Silk-Vine.* An introduced hardy climber, with cymes of brownish purple flowers in August. The foliage is dark green and smooth and the tufts of silky appendages to the seeds are quite ornamental.

PUERARIA. Kudzu Vine

A hardy vigorous vine, growing 40 to 50 feet in a season. Native of China and Japan; flowers violet, blotched with yellow, fragrant; blooms in early summer.

P. thunbergiana. Flowers pea-shaped, purple, blooming on the older woody stems in late summer.

TECOMA. Trumpet-Vine

Quite a large genus of climbing vines, mostly natives of warm regions, of both the Old World and the New. They adhere to their supports by means of aerial rootlets.

T. grandiflora. *Great Trumpet-Flower.* A beautiful species from China. The panicles of large flowers are pale orange color and very conspicuous. It is a strong grower, with bright, glossy foliage. One of the most showy climbing vines, with its beautiful orange-colored flowers.

T. radicans. *American Trumpet-Flower.* A strong, hardy, woody vine, growing 30 to 40 feet high. The flowers are in corymbs, trumpet-shaped, scarlet, with veins in the throat. A native of the United States.

VINCA. Periwinkle

A small group of trailing vines, with large solitary blue, pink or white flowers in the axils of the leaves. They are of considerable importance to the gardener, especially for cemetery planting. Adapted for growing beneath the shade of trees, etc.

V. major. *Greater Periwinkle.* The most vigorous grower of the genus. The flowers are pale blue, very large and attractive. Excellent for rockeries as well as for vases, etc.

var. variegata. *Variegated Large Periwinkle.* This distinct and pretty variety is a rapid grower, with handsome, mottled leaves and large flowers.

V. minor. *Lesser Periwinkle.* Much smaller in all its parts than the preceding species. It has very dark green, shining leaves and purplish blue flowers.

var. alba. *White Lesser Periwinkle.* Is similar to the above, with a profusion of milk-white flowers.

WISTARIA

A genus of climbing vines, entirely hardy and exceedingly ornamental when in bloom. They have pinnate leaves and long, drooping racemes of elegant flowers.

Wistaria Chinensis. *Chinese Wistaria.* A very beautiful popular species, with racemes of pale lilac flowers borne in great profusion in May. It is a vigorous climbing vine and creates a fine show when clambering over trees. The stems grow quite large, climb high and twine tightly. The growth is very rapid, frequently at the rate of 15 to 20 feet in a season.

var. alba. *Chinese White Wistaria.* In all respects similar to the species, except in color of the flowers, which are white and borne in great profusion, making a splendid show. Makes a very pretty contrast to the species with its blue flowers.

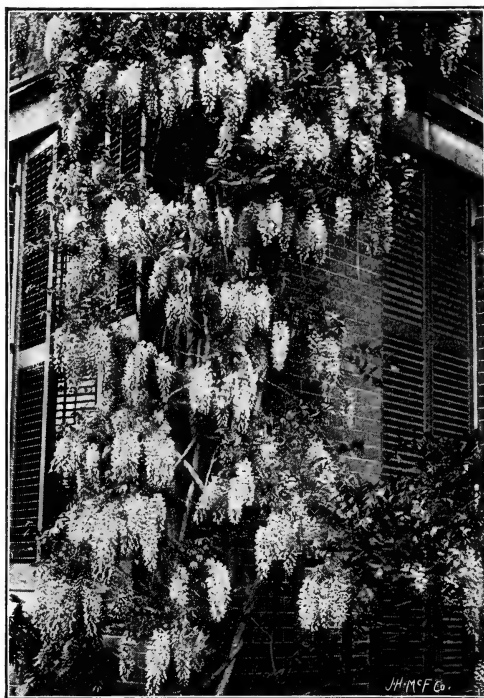
var. fl. pl. *Double-flowering Wistaria.* The individual flowers are perfectly double and of a bluish lilac color.

W. frutescens. *American Wistaria.* Native of the United States. A rampant grower, producing numerous dense, short racemes of lilac-purple flowers early in June.

var. alba. A variety of the above, with pure white flowers.

W. multijuga. *Japan Wistaria.* A rare and unique climber, quite distinct from the others. The racemes are immense, hanging in very long open clusters of deep blue flowers, and making a charming display.

var. alba. A variety of the above, with white flowers.



Wistaria Chinensis



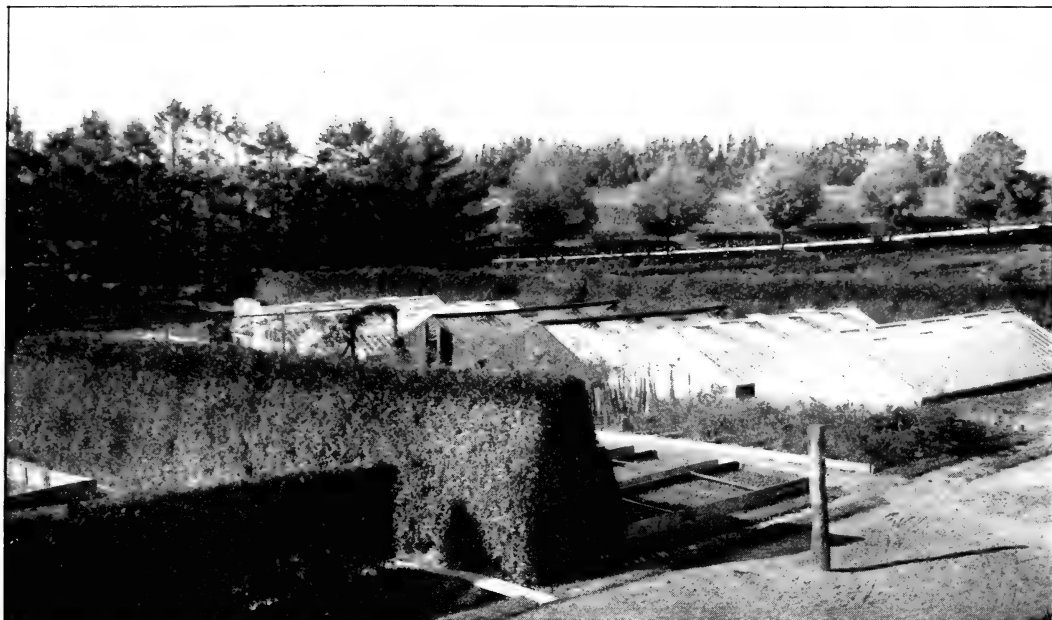
A partial view of our Propagating Houses

ROSES

As the Rose has always held the foremost rank in the entire list of cultivated plants, and fairly earned the title of the "Queen of flowers," we have, in accordance with the popular demand for the last fifty-seven years, made its cultivation a prominent feature in the floral department of our establishment. We cannot say that we grow every variety known, neither have we the least ambition so to do; but, in justice to ourselves, we desire to state that the list we offer to our customers assuredly embraces all the desirable qualities that any one can justly expect in these lovely flowers. Every new variety that promises to be



A view of one of our Propagating Houses, Roses on center bench, Evergreens on side benches



A partial view of our Winter Glass Storage Houses

ROSES, continued

valuable is put on trial as soon as it is introduced, and, if found wanting in any of the requisite essentials, it is dropped at once to make room for others that we know to be superior.

Class I. Hybrid Perpetual Roses

There can be no question as to the superior value of this group of hardy Roses. They include all the requisites of perfection, except the one quality of being everblooming, and even in this they are not entirely deficient, as some varieties flower occasionally during the autumn months. The



A house of young Roses

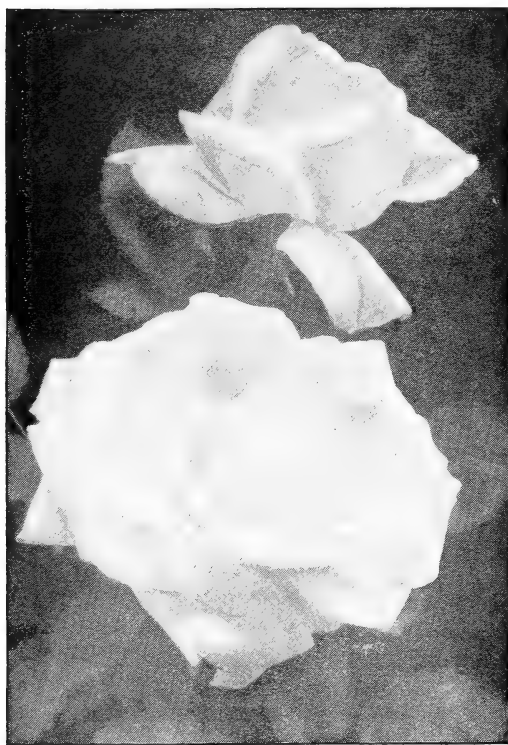


ROSES (Class I), continued

numerous kinds, especially of recent introduction, embrace some of the greatest acquisitions to the flower garden, being of the largest size, rich in color, and of delightful fragrance. A strong soil is absolutely necessary to grow them to perfection, and frequent applications of liquid manure early in the season will prove highly beneficial. This class is the Remontant of the French growers.

Alfred Colomb (Lacharme, 1865). This fine variety is exceeded in popularity only by its parent, General Jacqueminot. Flowers brilliant clear red, large and full, with a perfect globular form.

Anne de Diesbach (Lacharme, 1858). Sometimes known as Glory of France. Color clear carmine-rose, large and cupped. Seedling from La Reine.



Frau Karl Druschki

Baron de Bonstetten (Liabaud, 1871). Very deep red and crimson, in the way of M. Boncenne, but larger, fuller, and of more vigorous growth.

Baroness Rothschild (Pernet, 1867). A robust grower, but difficult to propagate. Beautiful clear pale rose, tinted with white. Very large and double.

Captain Hayward (Bennett, 1894). Flowers large; color bright crimson, like General Jacqueminot.

Clio (W. Paul, 1895). Flesh-color, shaded in the center with rosy pink; of globular form and very large.

Coquette des Alpes (Lacharme, 1857). Almost pure white; medium size, good form. Belongs to the Hybrid Noisette class. One of the very best of the whites.

Duke of Edinburgh (W. Paul & Son, 1868). Brilliant scarlet-crimson, shaded with maroon; large and full.

Eugene Furst (Soupert & Notting, 1876). Velvety crimson, shaded with a deep tint. Beautiful.

Frau Karl Druschki (P. Lambert, 1901). White American Beauty. Pure white; flowers large and full. A fine new Rose.

Francois Levet (Levet, 1880). Grows vigorously and blooms abundantly, especially during autumn. Color clear pale rose; size medium.

General Jacqueminot (Roussellet, 1853). Very vigorous and free-blooming. Brilliant crimson, large, not full, but producing splendid buds.

Gloire Lyonnaise (Guillot fils, 1885). A very strong grower, blooming in autumn. White, slightly tinted with yellow in center.

John Hopper (Ward, 1862). Large, full, rose-colored flowers having crimson centers.

Jubilee (M. H. Walsh, 1897). Flowers large; color bright crimson and very fragrant.

Mme. Gabriel Luizet (Liabaud, 1878). Pale pink, large and full. One of the best of its color.

Mme. Plantier (Plantier, 1835). Flowers white, very double; popular for cemetery planting.

Magna Charta (W. Paul & Son, 1870). Strong grower, free bloomer and large foliage. Color bright pink, suffused with carmine; large, full.

Marchioness of Lorne (W. Paul & Son, 1889). Bright rose-color, full, finely cupped, fragrant.

Margaret Dickson (A. Dickson & Sons, 1891). An exceedingly valuable variety of strong growth. Almost white, with pale flesh in center. Free-blooming and very double.

Marshall P. Wilder (Ellwanger & Barry, 1884). A beautiful Rose quite similar to Alfred Colomb. Bright cherry-carmine, large and full. Free-blooming.

Mrs. John Laing (Bennett, 1888). A free bloomer. Color satiny rose; very double and finely formed.

Paul Neyron (Levet, 1878). Raised from Victor Verdier, and a vigorous grower. Probably the largest flower belonging to this class. Color dark rose; fine form and habit.

Prince Camille de Rohan (E. Verdier, 1861). Crimson-maroon, very rich and velvety.

Ulrich Brunner fils (Levet, 1882). A seedling from Paul Neyron, of strong growth, with bright cherry-red flowers, very large and full.

Vick's Caprice (J. Vick, 1889). A vigorous, free-blooming, very distinct variety. Bright pink, very prettily striped with clear white. Desirable.



CHRISTINE WRIGHT

One of the most perfect and beautiful new Roses ever introduced; originated by Hoopes, Bro. & Thomas Company. A cross between an unnamed seedling and Madame Caroline Testout; a very strong climbing or pillar Rose with large, thick, leathery green foliage, which is proof against mildew or black spot. The flower is a bright, clear wild-rose pink, three and one-half to four inches in diameter, double, borne singly and in clusters; very beautiful in bud and lasts for days after cutting. The plant is a perfect mass of bloom in June and continues to bloom occasionally all during the season; the plants in our nurseries having buds and flowers until nipped by the frost. Beautiful as a post or pillar Rose and perfectly adapted for covering arbors, walls and trellises and the best hardy pink Rose we know. The accompanying plate is an actual reproduction of the color photograph of the Rose itself, photographed by the French autochrome process. The Christine makes a good companion to the Climbing American Beauty, of the same habits of growth, foliage and abundance of bloom.



Class II. Hybrid Tea Roses

This class includes some of the finest Roses in the whole catalogue; they combine the beauty and fragrance of the Teas with the hardiness of the Hybrid Perpetuals.

American Beauty (Bancroft, 1885). Although strictly a Hybrid Tea, this elegant Rose is usually classed among the Hybrid Perpetuals. Very large, double, bright carmine-red. Fine for forcing.

Antoine Rivoire (Pernet-Ducher, 1896). Large and double; pale rose, orange center petals, bordered carmine.

Ressie Brown (W. Paul & Son). Creamy white, flowers large, of good substance.

Betty. Color coppery rose, overspread with golden yellow.

Cardinal (Cook). Reddish crimson; double, free-flowering; very fragrant.

Climbing Killarney. An exact counterpart of Killarney, of vigorous climbing habit.

Climbing Meteor. Dark velvety crimson.

Climbing Mme. Caroline Testout. Satiny rose; strong grower.

Climbing Wootton. Violet-crimson; strong grower.

Cherry Ripe. Rosy crimson; free blooming; very fragrant.

Etoile de France. Red or crimson-velvet.

Florence Pemberton (Dickson & Sons). White, shaded with rose.

Gruss an Teplitz (W. Paul & Son, 1899). Brilliant cinnabar-scarlet, shaded with velvety fiery red. A very effective decorative rose; fine for massing.

Kaiserin Augusta Victoria (Lambert & Reiter, 1892). Pure white, with a very pale lemon tint in the center. A grand new Hybrid Tea.

Killarney (A. Dickson & Sons, 1899). Buds long and pointed; brilliant imperial pink. Free bloomer; hardy. A grand new Rose.

La France (Guillot fils, 1857). Pale peach-color, with rose center; large and full, forming exquisite buds.

La Detroit. A vigorous grower. Pink, outer petals cream-color; very fragrant.

Mme. Caroline Testout (Pernet-Ducher, 1891). An elegant Rose. The color is clear pink, and the fragrance very pronounced.

Mme. A. Veysset. A distinct sport from La France, with striped flowers. Sometimes known as "Striped La France."

Mlle. Augustine Guinoisseau (Guinoisseau, 1890). Almost pure white, with simply a slight tint of flesh-color. In all other respects the same as its parent, La France.

Meteor (Geschwind, 1887). Dark velvety crimson.

Mrs. Jardine (Dickson & Sons). Rosy pink.

Mrs. Robert Garrett (Cook). Delicate soft pink, both in flower and bud.

Mrs. Robert Peary (Dingee & Conard, 1898). A white climbing Rose, raised from Kaiserin Augusta Victoria. Large double flowers.

Magnafrano. Deep, rich, brilliant crimson. Constant and abundant bloomer.

Mad. Abel Chatenay. Rosy carmine; very double.

Mad. Jules Grolez (Guillot, 1897). Large, full, bright rose.

My Maryland (Cook). Salmon-pink; strong grower.

Princess Bonnie. Large, solid crimson; very fragrant.

Rhea Reid (Hill). Reddish crimson.

Richmond (E. G. Hill & Co.). Red-scarlet; free flowering.

Souvenir de la Wootton (Cook, 1889). A fine Hybrid Tea of native origin. Color bright crimson. We also grow a climbing variety.

Souvenir du President Carnot (I. Pernet, 1895). Delicate flesh-color, shaded with white.

White Killarney. A pure white sport from Killarney.

Class III. Everblooming Roses

We group together under the one general heading of Everblooming, all varieties that flower freely throughout the season. It comprises the Teas, Bourbons, Bengals or Chinas, Noisettes and Polyanthas together with all their numerous intermediate forms and hybrids. As a rule, they are not entirely hardy in the northern states without protection, but the dwarfer kinds are readily preserved by cutting the entire plant down in the autumn to within 6 or 8 inches of the ground, and covering with long, strawy stable manure. The exquisite buds produced by some of the varieties, and the delightful fragrance of others, especially the Teas, render them very popular for house plants.

Anna Muller. Bright rose-pink; blooms in clusters.

Baby Rambler (Mme. Norbert Levavasseur). A dwarf Polyantha Rose, with crimson flowers similar to Crimson Rambler.

Baby Rambler (Anchen Muller). Same as preceding, with pink flowers.

Bon Silene (Hardy, 1839). Color bright rose, delicately tinted with fawn, sometimes quite light. Deliciously scented.

Bridesmaid. It is a charming, clear bright pink in color, and much superior to its well-known parent.

Burbank. Cherry-rose; very free blooming.

Caroline Goodrich. Deep, rich velvety crimson.



ROSES (Class III), continued

Caroline Marniesse. Blush-white, strong grower; very free in bloom.

Catherine Zeimet (White Baby Rambler). Double pure white, blooming in large trusses.

Christine de Noue (Guillot, 1891). Tea Rose. Color rosy crimson, center salmon-rose; very double, large, imbricated, fragrant.

Chromatella (Coquereau, 1843). Syn., Cloth of Gold. A climbing Noisette. Flowers very large, double, bright golden yellow.

Clothilde Soupert (Soupert & Notting, 1890). A beautiful Polyantha; white, shaded with pink. A free grower and an exceedingly free bloomer, making a very desirable and showy variety for outdoor bedding.

Duchess of Edinburgh (Nabonnand, 1875). Color deep crimson; large and full flower.

Etoile de Lyon (Guillot, 1882). Color rich saffron-yellow, brighter in the center; very large and full, blooming profusely.

Gloire de Dijon (Jacotet, 1853). Very vigorous in growth, forming a good climber. Color yellow, shaded with salmon, very large and full; superb in bud.

Golden Gate (Dingee & Conard). Creamy white, with yellow at base of petals.

Helen Good. Yellow, suffused with pink; very large and very free.

Helen Gould. One of the hardiest everbloomers. Color rosy crimson, flowers full and perfectly double; makes beautiful buds. A cross between Kaiserin Augusta Victoria and Mme. Caroline Testout.

Hermosa (Manchesau, 1849). This beautiful old Rose is almost too well known to need a description. Rosy pink; an abundant bloomer.

Leonie Lamesch. Polyantha Rose. Deep coppery red.

Maman Cochet (S. Cochet, 1893). A very popular variety for bedding out in the open ground, as well as for pot culture during summer. Salmon and clear rose beautifully blended. Large double flower and splendid bud with stout stems.

Mme. Norbert Levavasseur (Baby Rambler). New pink Baby Rambler; large trusses of pure pink flowers.

Marechal Niel (Pradel, 1864). Flowers large and full, rich deep yellow, with a delightful odor.

Marie Van Houtte. Creamy white; very free.

Marion Dingee (Dingee & Conard Co., 1892). It blooms continuously all summer long. Color bright crimson, large and full.

Mary Washington. Flowers white, medium size, borne in clusters.

Mosella (Lambert & Reiter, 1896). Polyantha Rose, with double little flowers. White, with a yellow center, tinted with rose.

Papa Gontier (Nabonnand, 1883). Color dark crimson, with rosy carmine center.

Perle des Jardins (Levet, 1874). Straw-color, center orange-yellow. Large and beautiful buds.

Perle des Rouges (Paul & Son). Dwarf Polyantha Rose, color deep velvety crimson; small and double, produced in clusters.

Phyllis. Carmine-pink, white center.

President Wm. R Smith (Maiden's Blush). Creamy white, pink shadings; strong grower and very free-blooming.

Reine Marie Henriette (A. Levet, 1878). A very free-growing climber, belonging to the Tea class. Flowers large and full. Color bright cherry-red.

Safrano (Beauregard, 1839). A popular old Rose, chiefly valued for its exquisite apricot buds.

Solfaterre (Boyeau, 1843). Large and full, fine sulphur-yellow.

Souvenir de la Malmaison (Beluze, 1843). Flowers very double. Clear flesh color.

Souvenir de Pierre Notting. Apricot-yellow.

The Bride (May, 1887). A beautiful pure white sport from Catherine Mermet; very double.

White Bon Silene. Pure white; very fragrant.

White Maman Cochet (Cook, 1898). A sport from Maman Cochet. The white flowers have their outer petals tinted with pale rose or pink.

William Allen Richardson (Ducher, 1879). A strong-growing Noisette, producing freely fine orange-yellow flowers of medium size.

Yellow Maman Cochet. A Cochet Rose with deep sulphur-yellow color.

Class IV. Moss Roses

The greater portion of the Moss Roses are only annual bloomers, but a few really good kinds are known as "Perpetual," and bloom occasionally during the autumn.

Blanche Moreau (Moreau-Robert, 1881). Perpetual. Pure white, large full, and of perfect form, the buds and flowers produced in clusters.

Comtesse de Murinais (Vibert, 1843). Large and double, of free growth, flowering abundantly during autumn.

Crested, or Cristata (Vibert, 1827). Properly a Hybrid China, with superb large crested buds. Free-blooming habit. Flowers large and full, beautiful rose-color.

Princess Adelaide (Laffay, 1854). Abundant bloomer; flowers of medium size, full, pale rose color.

Raphael. A fine autumnal bloomer, with luxuriant foliage and very mossy. Color pale rose.

Salet (Lacharme, 1854). Perpetual. Bright rose, with blush edges, quite mossy; blooms in clusters.

William Lobb (Laffay, 1856). Flowers of medium size, carmine, shaded with violet.



Class V. Climbing Roses

Under this heading we group Roses quite dissimilar in character, but all of which climb freely.

It includes the popular Prairie Roses and the comparatively new class of Ramblers.

Baltimore Belle (S. Feast, 1843). Flowers very distinct, almost white, with a faint pink tint; a strong grower.

Christine Wright (H. B. & T., 1903). A strong-growing Climbing Rose, with large, thick, leathery foliage; flowers 4 inches in diameter; color bright clear pink, almost double, borne in clusters—as many as fourteen buds and flowers in a cluster. Very beautiful in bud and a very valuable Rose. It never has shown signs of black spot or mildew. Hardy. See colored plate.

Climbing American Beauty. This is one of our own seedlings, obtained by crossing the American Beauty with an unnamed seedling. Color rosy crimson, similar to its pollen parent; flower three to four inches in diameter and fragrant; finely formed on long stems. Blooms very freely in May and June, and occasionally during the summer. The plant is a strong grower, making shoots ten to twelve feet in a season, and perfectly hardy. Foliage of good size, deep glossy green color; does not mildew; is not subject to black spot, and remains on until frost. The plate is from a photograph in colors, so is absolutely correct. It shows what a profuse bloomer it is.

Climbing Clothilde Soupert. A climbing variety of that good old Polyantha Rose, Clothilde Soupert. Flowers white, shaded with pink; a free bloomer.

Climbing Hermosa. An Everblooming Rose. Hardy and vigorous. A sport from the popular old Hermosa.

Columbia (H. B. & T., 1903). Strong grower, climbing habit; good, clean, shiny foliage; flower 4 to 5 inches in diameter. Bud very beautiful; pure salmon-pink in color, borne singly on long stems; very sweet-scented, semi-double. Hardy.

Crimson Rambler (Turner, 1894). No introduction of later years has so permanently become so popular as this superb variety. It is a prodigious bloomer, an extremely vigorous climber, and the lovely little double crimson flowers, borne in enormous clusters, render it indispensable in the smallest collection.

Dawson (Jackson Dawson). Raised from seed of Multiflora crossed by Gen. Jacqueminot. Its long shoots are covered during the blooming season with pretty clusters of fragrant, bright pink, semi-double flowers.

Dorothy Perkins. Origin, Wichuariana crossed with Gabriel Luizet. Flowers borne in clusters; color clear shell-pink and fragrant.



Dorothy Perkins

Edwin Lonsdale (H. B. & T.). A very profuse bloomer. Flowers quite double, pale lemon-white, with a delicate Tea fragrance.

Empress of China (Jackson & Perkins, 1893). Blooms continuously all the season. Color rosy red or pink; slightly fragrant; medium size.



ROSES (Class V), continued

Greville (Syn., Seven Sisters). An old Rose, producing large clusters of bloom, the individual flowers being very different in color, and varying from light to dark red.

Lady Gay. Flowers cherry-pink, fading to white; vigorous grower; hardy.

Philadelphia Rambler. An improvement on Crimson Rambler. The flowers are larger, more double and of a darker crimson color.

Prof. C. S. Sargent (H. B. & T.). Origin, Wichuraiana crossed by Souvenir d'Auguste Metral. Rich golden yellow in bud; open flowers of fine form, very double, delicate buff, fragrant.

Queen of the Prairies (S. Feast, 1843). A very vigorous grower; produces large trusses of bright red flowers, with occasional white stripes on the petals.

Robert Craig (H. B. & T.). The color is yellow, shaded with apricot, deepening in the center.

Tausendschon (Thousand Beauties). Pink shading to rosy carmine; strong clean grower.

White Rambler (Lambert, 1896). It is a strong, rampant grower, producing large clusters of small, double white flowers in great profusion.

William C. Egan (Jackson Dawson, 1900). This Rose was produced by crossing Gen. Jacqueminot on *R. Wichuraiana*, but shows no trace of either in its bloom. The flower is large and very full, clear flesh-color. Although only an annual bloomer, it remains in flower several weeks.

Yellow Rambler (Lambert, 1896). Aglaia of former lists. The large bloom clusters are composed of white flowers with yellow centers, opening pure white.

Class VI. Austrian Roses

We offer only budded plants, owing to the impossibility of growing them on their own roots.

Harrison's Yellow (Harrisoni). A slender but vigorous grower, with distinct golden yellow flowers.

Persian Yellow (Willock, 1833). Has long, slender shoots, with small bright green foliage. Flowers yellow, double and very attractive; blooms freely on the wood of the previous year.

Class VII. Rugosa Roses

A species of Japanese plants of easy culture and entirely hardy, with large single flowers. Very handsome in the shrubby border; glossy leaves, and large bright red seed-pods in autumn.

Rugosa (Thunberg). See special list of Rose species.

Rugosa alba (Thunberg). Similar to the species, but with pure white, single flowers, and blooms occasionally throughout the season.

Agnes Emily Carman (Carman). Originated by crossing Persian Yellow on *R. rugosa*. The flowers are very abundant, bright crimson and are produced frequently all summer long.

Conrad Ferdinand Meyer. Strong grower; large, double, full, clear silvery rose.

Dawson's hybrid rugosa (Jackson Dawson). Origin, Gen. Jacqueminot crossed on *R. rugosa*. Flowers brilliant crimson-scarlet.

Mme. Georges Bruant (Bruant, 1888). Cross between *R. rugosa* and Sombreuil. It has charming long, pointed, pure white buds. Blooms freely all summer.

New Century. Double, pink, with bright red centers, borne in clusters fragrant, like the Sweetbrier.

Sir Thomas Lipton. Double white; good foliage; constant bloomer.

Class VIII. Sweetbrier Roses

This is the *Rosa rubiginosa* of botany.

Common Sweetbrier. Growth very vigorous. Branches thickly clothed with numerous prickles.

LORD PENZANCE'S HYBRID SWEETBRIERS

Amy Robsart. Charming deep rose.

Anne of Geierstein. Rich dark crimson.

Brenda. Delicate shade of peach.

Flora MacIvor. White, tinted with rose.

Meg. Merrilies Bright crimson. Distinct.

Rose Bradwardine. Beautiful rose-color.

Class IX. Species of Roses

It is only within recent years that single-flowering Roses have been appreciated. They convey an exceptional sense of natural methods, and their multitude of dainty flowers is always pleasing.

Rosa Carolina. *Swamp Rose.* A native species, common in low grounds. The pale pink flowers are arranged in corymbs.

R. humilis (Syn., *R. lucida*). *Dwarf Rose.* Low-growing native species found along roadsides, etc. A pretty little plant with pink flowers.

R. multiflora. *Many-flowered Rose.* A native of China and Japan; pale red, single flowers.

R. rubiginosa. *Sweetbrier Eglantine.* Rather slender but rapid-growing species. Leaflets highly aromatic. Flowers mostly pink. For description of the newer hybrids, see Class VIII.

R. rugosa (Thunberg). A sturdy shrub, with large deep green, wrinkled, glossy foliage and a succession of bright rose flowers all summer, followed by large, bright red fruit.

R. Wichuraiana. *Memorial Rose.* Charming trailer from Japan; produces numerous clusters of white fragrant flowers in July.



CLIMBING AMERICAN BEAUTY

A new Rose of wonderful beauty and merit. A cross between the American Beauty and an unnamed seedling; originated and introduced by Hoopes, Bro. & Thomas Company. Color rosy crimson, identical with its pollen parent, the American Beauty, and with the same exquisite fragrance, a quality rarely found in climbing Roses. Of strong habit of growth, making shoots of from ten to fifteen feet in one season, hardy as an oak. Will thrive and bloom in almost any situation where a climbing or pillar Rose is desired. Flowers three to four inches in diameter, finely formed on long stems, are produced in great profusion, in fact. The foliage is large, deep green and entirely free from black spots or mildew. One of the first Roses to bloom in the spring, comes into flower with us in the latter part of May and the first week in June, and continues in full flower for a month or more, with occasional bloom during the growing season; the plant with us having buds and flowers nipped by frost in November. The accompanying plate is a color photograph of the original bush, six years old, containing over one hundred blossoms on one side, photographed by the new French autochrome process.



California Privet Hedge

HEDGE PLANTS

Whether for defensive or ornamental purposes, a well-kept hedge forms one of the most attractive features about a residence.

California Privet is the most popular hedge plant of today. It is nearly an evergreen, holding its foliage until after Christmas. Is a rapid grower, easy to transplant and will make a perfect hedge sooner than any other shrub.

"Evergreen hedges" may very properly be divided into two distinct classes, which in the planting, selection of varieties, and after-management, differ very essentially from each other; first, those intended strictly for shelter, or to conceal unsightly objects; and second, the true ornamental hedge. The former requires less care, are intended mainly for the unfrequented portion of the grounds, and frequently need no attention, except an occasional clipping of the stronger branches, and a heading-in of the taller plants.

Among the deciduous trees and plants are many that are admirably suited for hedge plants; and, lastly, flowering shrubs, with their annual wealth of bloom, form very attractive screens and barriers.

As a general rule of guidance, we offer the following brief hints on planting. After thoroughly working the soil of a strip at least 4 feet wide and as long as the hedge is to extend, open a trench through the middle of the strip, and with a careful person to hold and range the plants, let one or more assistants thoroughly pulverize and fill in the soil about the roots. Before setting, dip each plant in a thin puddle of mud, and place evergreens from 15 to 18 inches apart in the row; California Privet should be but 9 inches apart; deciduous trees and shrubs, 12 to 18 inches apart.

The following list comprises the leading varieties of trees and plants useful for hedging purposes.

DECIDUOUS TREES—

English Beech, English Maple, Japan Maple, Crataegus (Thorn), Flowering Apple.

EVERGREEN TREES—

American Arborvitæ, Hemlock Spruce, Norway Spruce, Retinosporas.

DECIDUOUS SHRUBS—

California Privet, Iboia Privet, Regel's Privet, Berberis Thunbergii, Japan Quince, Deutzias, Weigelas, Altheas, Bush Honeysuckles, Philadelphus, Spireas, Lilacs.

The Osage Orange makes the best defensive hedge, but, it being so liable to be infested with the San José scale, we do not advise planting it.

HERBACEOUS PEONIES

The value of this noble flower is just beginning to be appreciated. Following the rhododendron in bloom, it is equally showy, and makes a continuous flowering of these two plants for several weeks. By planting Hardy Phloxes in the same bed with Peonies you can have a continuous bloom from the last of May until September. It takes one or two years for the roots to get established; they will then produce a profusion of flowers which will increase in size and numbers each year as the roots grow larger and stronger. The tops die down each autumn and come up again in the spring. We have a large collection of the finest varieties from the best Holland growers.

Agida. Rich, dark glowing red; double.

Candidissima. Blush-white.

Chinensis rubra. Beautiful shade of pink.

Delacheii. Very late; rich, deep crimson.

Duc de Cazes. Red, shading to salmon.

Eclatante. Deep rose.

Faubert. Bright, deep purplish crimson.

Faust. Lilac-pink.

Festiva alba. A fine large, pure white.

Festiva maxima. The finest double white.



HERBACEOUS PEONIES, continued

Fragrans. Deep pink, with lighter center.
Grandiflora alba. Very fine white.
Grandiflora rubra. Extra-large, blood-red.
Golden Harvest. The nearest to a yellow.
Henry de May. Light crimson; full flower.
Illustration. Bright red.
Louis Van Houtte. Brilliant red.
Louis Renault. Bright rose.
Mme. Breon. Flesh-color.
Mme. Louise. Salmon-white, center carmine.
Mme. Munier. White, shaded with buff.
Marion Dhour. Soft salmon-rose.
Marie Lemoine. Flesh, passing to white.
Miranda. Deep rose; a fine full flower.
M. Bellart. A rich purplish crimson.
Ne Plus Ultra. Delicate pink.
Officinalis rubra pleno. Rich deep crimson.
Pulcheriana. Violet-rose.
Purpurea superbum. Purplish crimson.

Queen Perfection. Yellowish white.
Queen Victoria. White and yellow.
Reevsiana fl. pl. Violet-rose.
Rosea elegans. Rose, with light center.
Tenuifolia. Leaves deeply cut; flowers single, rich crimson.
Triomphe de Paris. Outside white, center sulphur-yellow.
Victoria Tricolor. Bright rose, center yellowish white, with few red marks.

Single Herbaceous Peonies

Adana. Rich pink and flesh; a free bloomer; quite early; large.
Areos. Bright pink, fading to white.
Argus. Rich deep rose.
Defiance. Brilliant crimson.
Millais. Dark maroon.
Mrs. Key. Bright dazzling crimson; yellow stamens.
Prince Alexander. Very fine cherry color.

HARDY PHLOXES

Next to the Peony the numerous varieties of *Phlox paniculata*, comprising so many different colors, are the most beautiful and showy of all Herbaceous Plants. They are easily grown, will succeed in any good garden soil, but should be taken up and divided about every third year to get the best results. We have endeavored to obtain the best varieties we could select from the French and other growers.

Amazone. Large flower; pure white; fine.
Athis. Lilac-pink.
Belvidere. Salmon-pink; a choice sort.
Bridesmaid. White; large crimson eye.
Burnes. Rosy crimson.
Coquelicot. Flowers large and of a fiery red color.
Eclaireur. Purplish crimson.
Etoile de Lyon. White, pink eye.
Florence. Pure white.
Groschards. Rosy salmon.
Henri Murger. Pure white, carmine center.
La Soleil. Salmon-pink.

Le Fin du Monde. Orange-scarlet.
Le Pole du Nord. White, crimson eye.
Le Siecle. Dwarf; large flower; salmon-rose.
Le Vengeur. Large; bright carmine-amaranth.
Lothair. Large; rich salmon-color, crimson eye.
Marmorata. White and pink.
Oberon. Coppery red.
Pantheon. Large, beautiful; pink or salmon-rose.
Pecheur d'Islande. Lavender-pink.
Queen. Pure white; fine.
Richard Wallace. White, with violet center.
Sesostris. Large flower, bright carmine-amaranth.

Hardy Perennials

Under this heading we group a choice collection of hardy plants. Good light garden soil is sufficient and a slight coat of long manure during winter.

Anemone. *Japanese Windflower.*
Anemone, Queen Charlotte. Semi-double pink.
Anemone, Whirlwind. Semi-double white. August till frost.
Aconitum napellus. Long spikes of blue and white flowers; 3 to 5 feet.
Althæa rosea. *Hollyhocks.* Double. All colors.
Althæa rosea var. Allegheny Hollyhocks. Large fringed flowers. Several colors; double.
Alyssum saxatile. *Gold Tuft.* Yellow.
Anchusa Italica. A fine hardy, herbaceous plant, 4 to 5 feet; flowers a beautiful blue.
Anthemis tinctoria. *Chamomile.* Pale yellow; blooms all season.
Aquilegia Canadensis. Native species; red flowers.

Aquilegia chrysantha. Large yellow flowers with long spurs.
Aquilegia coerulea. Large; blue and white with long spurs.
Aquilegia glandulosa. Blue, white tips. Siberia.
Arabis alpina. *Rock Cress.* Flowers white; early spring; dwarf.
Armeria formosa. *Sea Pink.* Narrow leaves; pink flowers.
Aruncus sylvester (*Spiræa Aruncus*). *Goat's Beard.* Tall; white flowers in long, loose panicles.
Asclepias tuberosa. *Butterfly Weed.* Bright orange.
Asclepias incarnata. Beautiful flesh-colored bloom.



HARDY PERENNIALS, continued

Asperula odorata. *Sweet Woodruff.* Dwarf flowers, white leaves; very sweet-scented.

Aster. Blooms in autumn; very showy.

Astilbe cordata. Panicles of white flowers.

Baptisia Australis. *False Indigo.* Dark blue.

Bocconia cordata. *Plume Poppy.* White.

Campanula. White and blue bells.

Cerastium tomentosum. *Mouse Ear.* White; very dwarf.

Ceratostigma plumbaginoides (*Plumbago lar-pentæ*). *Leadwort.* A creeping plant, with rich blue flowers.

Chrysanthemums. One of the finest of florists' flowers. Our collection is very rich in the three classes of Pompon, Chinese and Japanese and consists of 17 named kinds.

Chrysanthemum hybridum. *Shasta Daisy.* White; blooms all summer.

Clematis Davidiana. Shrubby herbaceous variety; lavender-blue tubular flowers. August and September

Coreopsis. Three species, with golden bloom.

Delphinium. *Larkspur.* Several varieties.

Dianthus barbatus. *Sweet William.* All colors mixed.

Dianthus plumarius. *Garden Pink.* Single and double.

Dicentra spectabilis. Tall, early; rosy pink.

Dictamnus fraxinella. Pale purple flowers.

Digitalis purpurea. *Foxglove.* White, pink and purple.

Euphorbia corollata. Flowers small, white.

Funkia. Four species, different colors.

Gaillardia grandiflora. Red and yellow bloom.

Geranium sanguineum. Bright red flowers.

Eupatorium ageratoides. Small white flowers.

Eupatorium purpureum. *Joe Pye Weed.* Purple.

Geum coccinea. Dark crimson.

Gypsophila paniculata. *Infant's Breath.* Small white flowers.

Helium. *Riverton Gem.* Old gold and terracotta; 2½ to 3 feet.

Helianthus. *Sunflower.* Two species; yellow, single flowers.

Helianthus multiflorus fl. pl. Large, double golden yellow flowers in July and August.

Heliopsis pitcheriana. *Orange Sunflower.*

Heliopsis, var. semi-plena. *Orange Sunflower.* Semi-double form.

Helleborus niger. *Christmas Rose.* Flowers greenish white, 2 to 3 inches across. Very early spring.

Hemerocallis. Several species; yellow and orange.

Heuchera sanguinea. Blooms crimson-scarlet.

Hibiscus Moscheutos. Large white or pink flowers.

Hyacinthus candicans. *Cape Hyacinth.* A snow-white summer-blooming Hyacinth, 3 to 5 feet in height, twenty to thirty bell-shaped flowers.

Iberis Gibraltarica. *Hardy Candytuft.* White tinted with red.

Iris Germanica. *German Flag.* Thirty-five beautiful named varieties. Also several botanical species of merit, including *I. Sibirica* and varieties.

Iris Kämpferi. Japanese species. An elegant assortment of colors; 25 named varieties.

Lathyrus latifolius. *Perennial Pea.* Several colors.

Lavandula vera. *Lavender.* Fragrant, blue flowers, 1 to 2 feet.

Liatris. Three species. Tall purple spikes.

Lobelia cardinalis. Brilliant scarlet bloom.

Lupinus. Mixed blue and white; 2 feet.

Lychnis Chalcedonica fl. pl. Bright scarlet.

Lychnis coronaria (*Agrostemma coronaria*). *Mullein Pink.* Bright crimson.

Lychnis Haageana. Mixed orange, scarlet and crimson; 12 inches.

Lysimachia clethroides. Beautiful white flowers.

Lythrum roseum superbum. Long spikes of purple.

Mertensia Virginica. *Lungwort.* Rich purplish blue.

Monarda fistulosa. *Wild Bergamot.* Red flowers.

Mysotis palustris. *Forget-me-not.* Blue flowers. 6 inches.

Pachysandra procumbens. Very dwarf; white.

Papaver nudicaule. *Dwarf Poppy.* Yellow flowers.

Papaver orientale. *Oriental Poppy.* Deep scarlet; very showy.

Pardanthus Chinensis. *Blackberry Lily.* Orange-color.

Passiflora incarnata. *Passion-Vine.* Flesh-colored.

Pentstemon barbatus Torreyi. Bright scarlet.

Pentstemon digitalis. Large, showy, bell-shaped pale flowers.

Phlox paniculata. *Perennial Phlox.* See page 70.

Phlox subulata. *Mountain Pink.* Creeping, with pink bloom.

Phlox subulata alba. Similar to above, but white.

Physostegia Virginiana. *False Dragonhead.* Pale rose.

Platycodon grandiflora. *Bell-flower.* Pale blue.

Platycodon mariesii. Large, open, bell-shaped flower, rich violet-blue; plant dwarf and compact. July and August.

Polemonium reptans. Corymbs pale blue flowers.

Primula veris. *Cowslip.* Hardy spring-flowering; mixed colors.

Pyrethrum hybridum. Dwarf double and single; mixed.

Rudbeckia. Three species for late summer. Yellow

Rudbeckia laciniata fl. pl. *Golden Glow.* Flowers on long stems, double, bright golden yellow.

Saponaria Caucasica fl. pl. *Soapwort.* Double rose.



HARDY PERENNIALS, continued

Scabiosa Caucasica. Pale lilac, blue flowers.

Scabiosa Japonica. Flowers lavender-blue; 2½ feet. Blooms all summer.

Sedum spectabile. Beautiful heads of pink bloom.

Solidago. *Goldenrod.* Yellow flowers; several species.

Stokesia Cyanea. Flowers lavender-blue, 2 feet. July to frost.

Thalictrum aquilegifolium. Pale lemon-color.

Tradescantia Virginica. *Spiderwort.* Several kinds.

Ulmaria rubra (*Spiraea lobata*). Purplish pink.

Ulmaria pentapetala (*Spiraea Ulmaria*). *Meadow Sweet.* White.

Ulmaria pentapetala variegata. Leaves striped with yellow.

Valeriana officinalis. *Garden Heliotrope.* Flowers old-rose color, sweet scented.

Veronica. Spikes of deep blue flowers.

Ornamental Grasses

Arundo Japonica. *Bambusa Metake.* Japanese Cane. Native of Japan. Stems 6 to 8 feet long, leaves 6 to 12 inches long; rich green color, nearly white on under side.

Erianthus Ravennæ. *Plume Grass, Hardy Pampas Grass.* A native of southern Europe, forming tall clumps, with long, silky panicles of a whitish or violet color. It is very plume-like in autumn.

Miscanthus Sinensis (Syn., *Eulalia Japonica*). This ornamental grass, popularly known as *Eulalia*, forms a large clump of long, recurved green leaves, with flower-stems 5 to 6 feet high.
var. variegata. *Variegated-leaved Eulalia.* Like the above, only its leaves are striped lengthwise.

Miscanthus Sinensis Zebrina. *Zebra-leaved Eulalia.* A singular variety, with the leaves striped crosswise.

Miscanthus gracillima univittata (Syn., *Eulalia gracillima*.) Forms large clumps of long, narrow leaves, bright green, with the mid-rib of a whitish tint.

Panicum virgatum. A native species, 3 to 4 feet in height, with deep green leaves and delicate, graceful, open panicles of very pretty flowers.

Phalaris arundinacea picta. *Ribbon Grass.* A distinct variegated variety, having its leaves elegantly striped with white. It is a low-growing plant, spreading in character.

Bulbs and Tubers

Class I. Hardy Bulbs

All bulbs enumerated in this class should be planted in the autumn. The soil should be rich, light and thoroughly drained. In planting set the bulbs from 2 to 6 inches deep, depending upon their size, and envelop each in pure sand.

Convallaria majalis. *Lily-of-the-Valley.* An old garden plant, with numerous small white bells.

Crocus. One of the earliest of our spring flowers.

Galanthus nivalis. *Snowdrop.* The earliest of our spring flowers. Pure white bells. Very dwarf. Single and double.

Hyacinths, Single and Double. Named varieties and assorted colors.

Jonquils. Blooms early. Yellow, fragrant; dwarf.

Lilium. The queen of bulbs. The following Lilies are all hardy, bloom freely, and are easily grown.

L. auratum. *Golden-banded Lily.* From Japan. Large white, with maroon spots and yellow bands down the center of each petal.

L. superbum. Native. Beautiful, rich orange-spotted, pendent flowers.

L. speciosum rubrum (*L. lancifolium*). A fine Japan species. White with rose-colored spots. Large flowers.

L. speciosum album. A variety of the above, with pure white bloom.

L. speciosum melpomene. A variety of *L. speciosum rubrum*; richer in color and much larger in size with erect stems.

Lilium tigrinum. *Tiger Lily.* Orange-spotted bloom.

L. umbellatum. Bright red, with small black spots. Very distinct.

Narcissus. Flowers with beautiful tints of yellow and orange.

Tulips, Single, Double and Parrot. A splendid collection, embracing all colors. Named or mixed.

Class II. Tender Bulbs

Bulbs in this class should be planted in the spring.

Cannas. Strong-growing plants, unexcelled for subtropical bedding. Several splendid varieties named.

Colocasia esculenta. Robust, with enormous leaves.

Dahlias. We offer a complete collection of both single and double large- and small-flowering kinds. 28 named varieties.

Gladiolus. Summer-blooming bulbs of every imaginable color. A choice set of named as well as mixed kinds.

Tigridia. *Tiger Flower.* Excellent for bedding.

Tigridia conchiflora. Yellow.

Tigridia grandiflora. Red.

Tritoma. Often called *Red-Hot Poker Plant*, in allusion to its large orange-scarlet spikes of flowers.

Tuberoses, Double Italian. Very popular for its spikes of creamy white fragrant flowers.

Tuberoses, Pearl. A newer variety, dwarfer in growth.

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